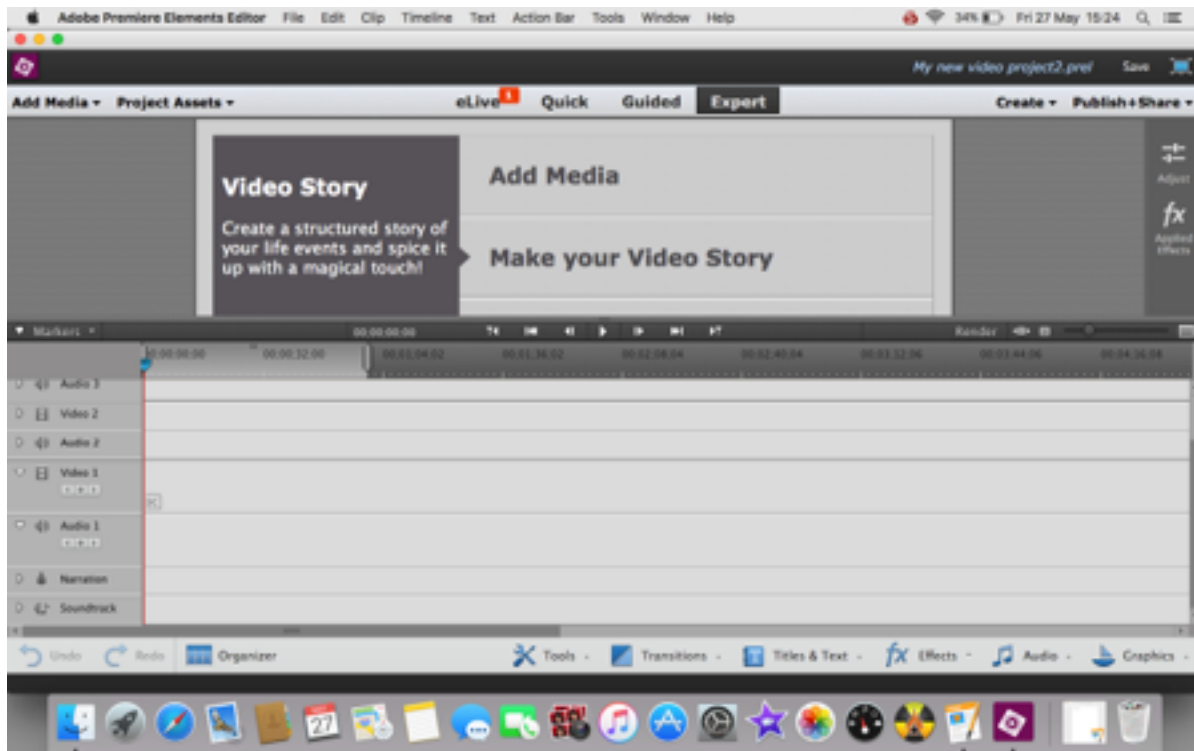
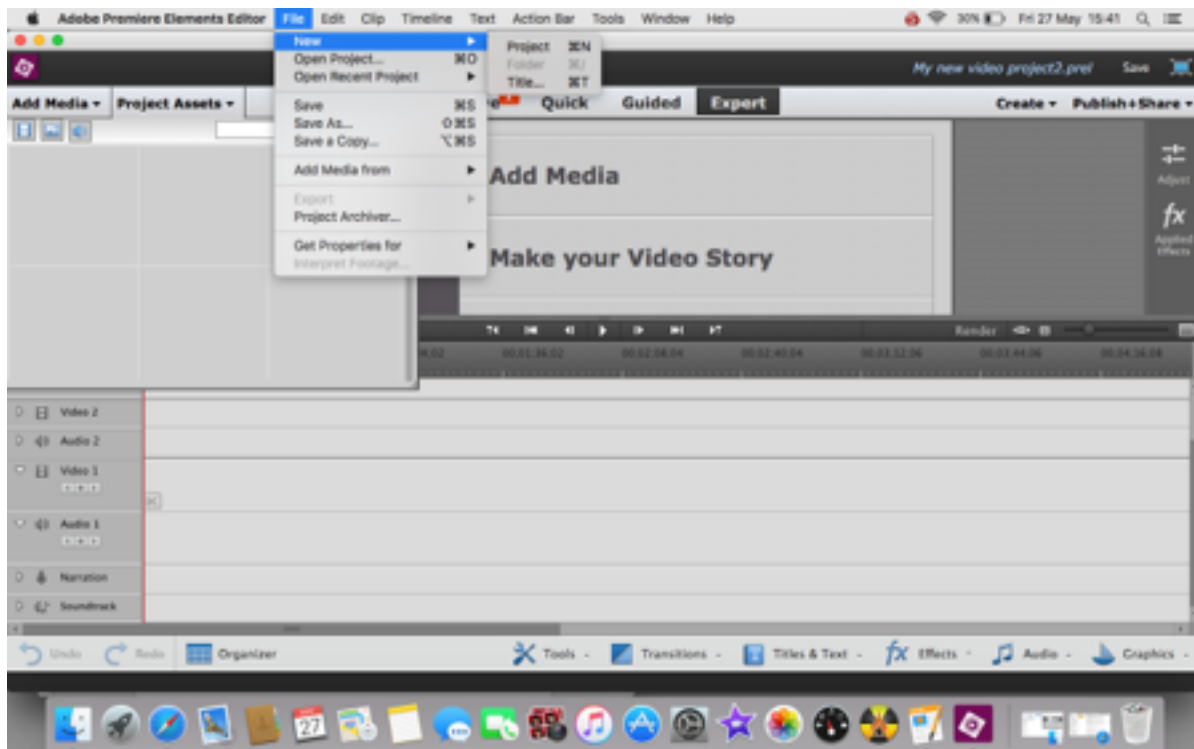


## Adobe Premiere Elements 13 New Project

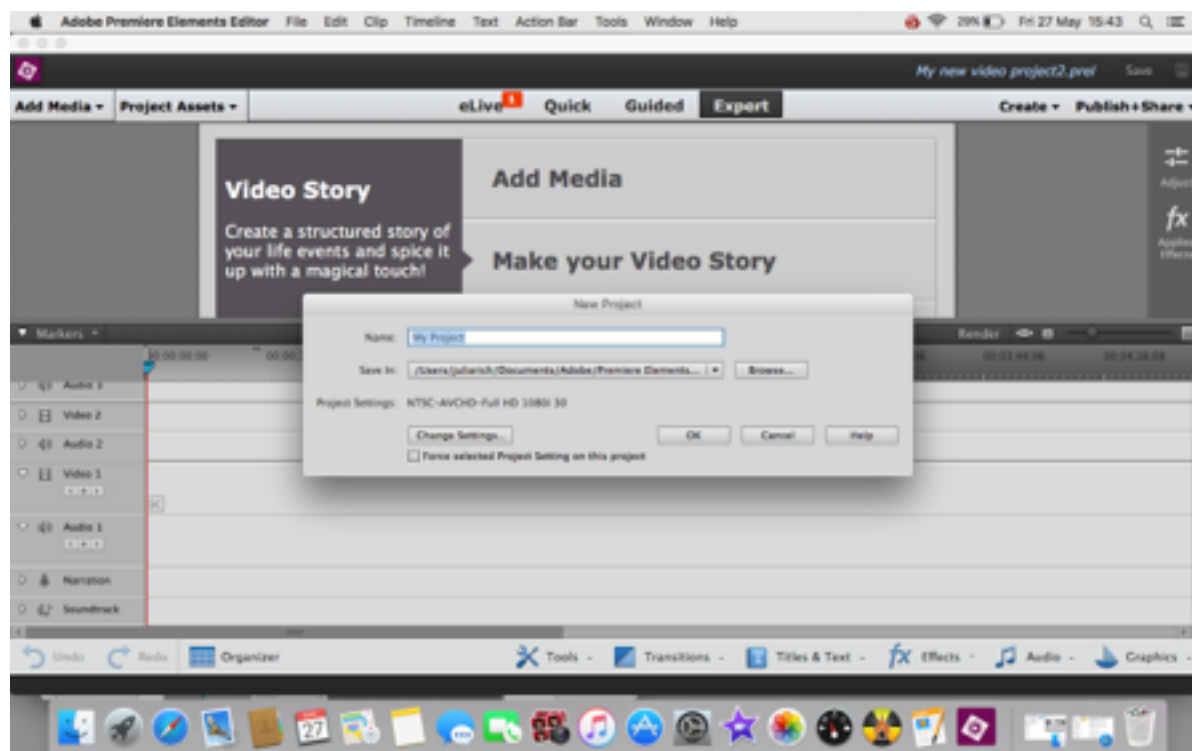
Open up Premiere Elements, and choose “New Project” option, when the screen has opened, use the “Expert” mode. This is slightly more difficult at first than the guided mode, but persevere, it will make sense fairly quickly and is a more flexible way of working....in the long run.



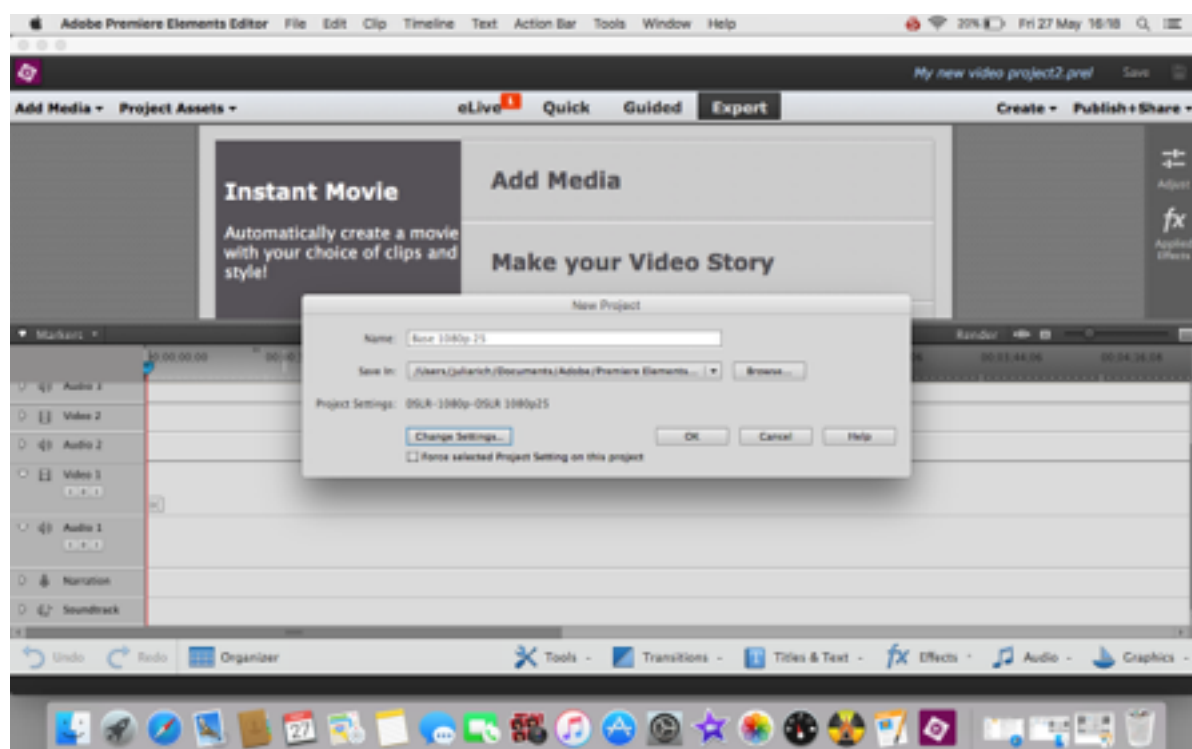
This is the main screen in which you will put together your video. The lower half of the screen is given over to the Timeline - there are tracks available for video and audio, and you can use more than one of each in your final piece.



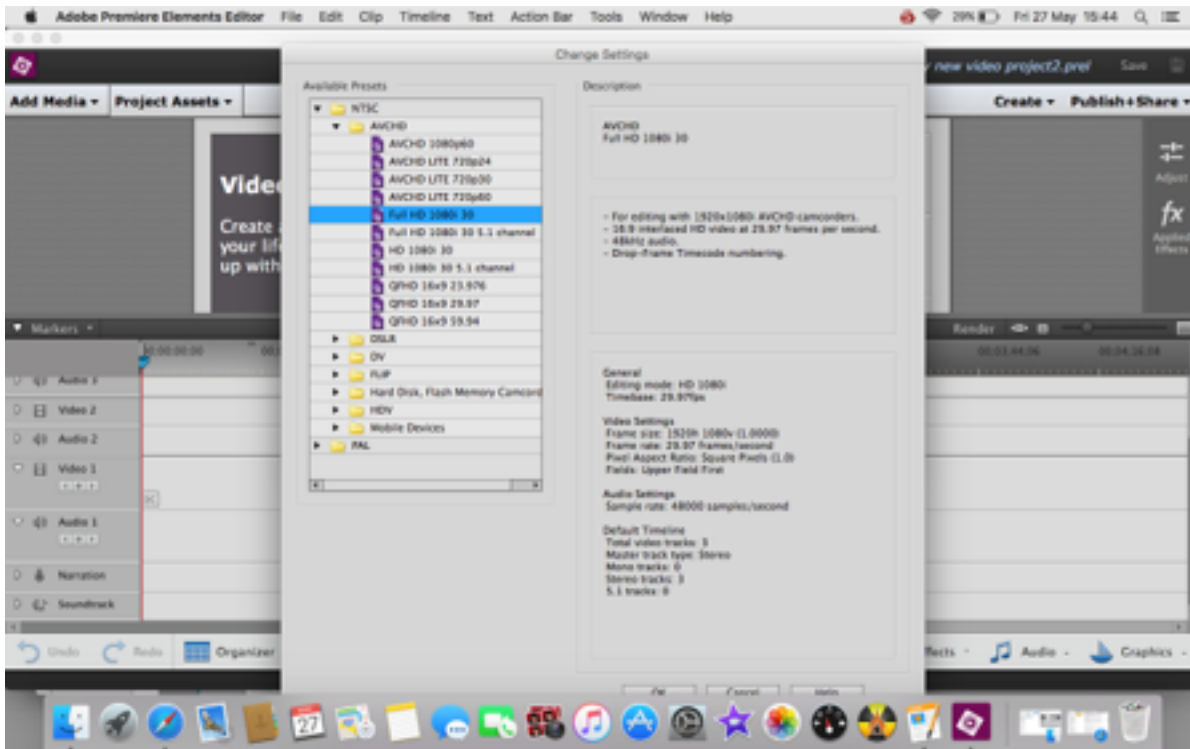
Once the screen is opened, choose File-New Project. This should allow you to set your preferences for your project. This is a built in “feature” of Elements - having opened a new project you need to open another new project to get at the settings you desire to work with rather than the default settings. It will ask you if you want to save the original one you started the program up using - no you don't need to save it. You will be working with the new one according to your own preferences.



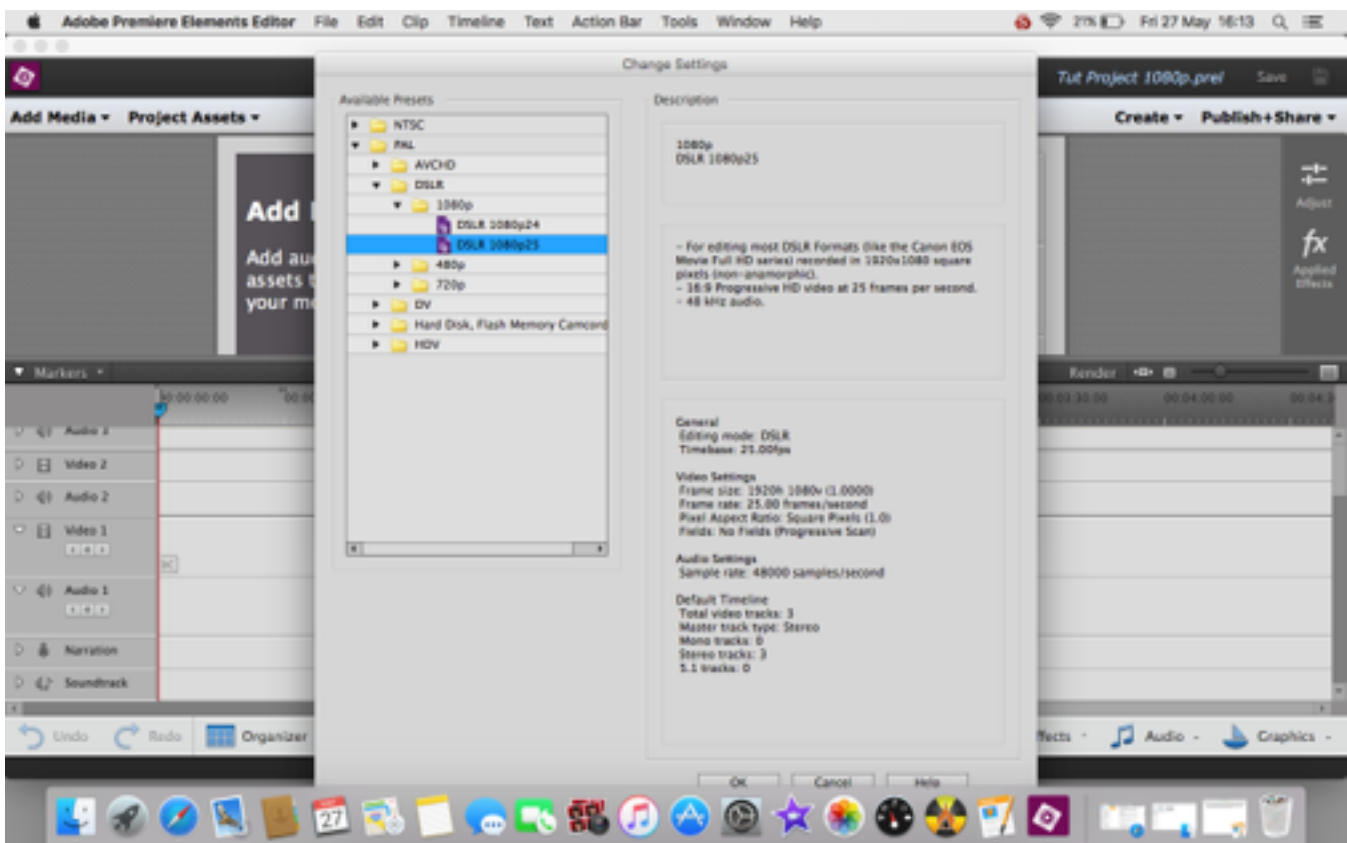
You should get a New Project box, in which you name the item and most importantly, choose the settings - at the bottom of the pop-up is the “change settings” box. However, give your project a name first - something that makes sense to you. If you use the video size and frame rate after the name (as below), it will be useful - see why further on in this tutorial. Now click on the ‘change settings’ box to access the next layer of options.



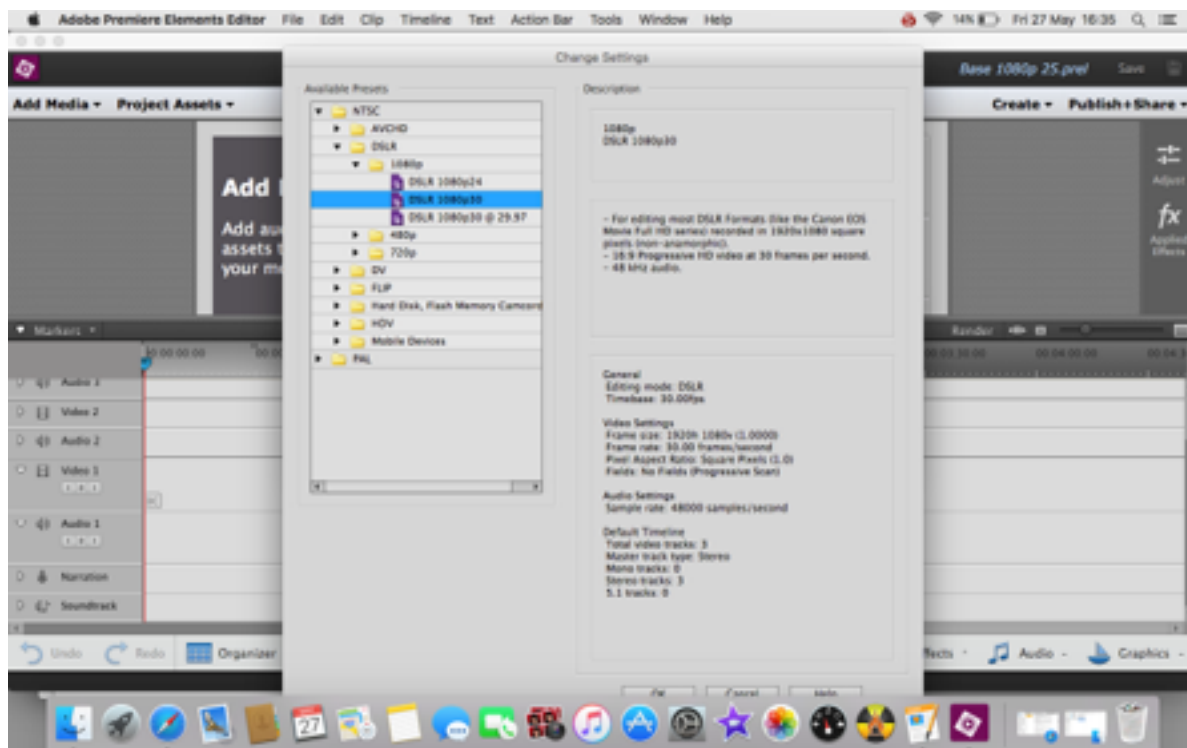
You are given a drop down list of available formats, and the initial highlighted one is the default - which unless you are using AVCHD capture is the one you do not want, neither is the one obviously labelled DSLR. Collapse this part of the list, go straight down the column to PAL options and pick it. This will produce another drop-down of the formats you need.



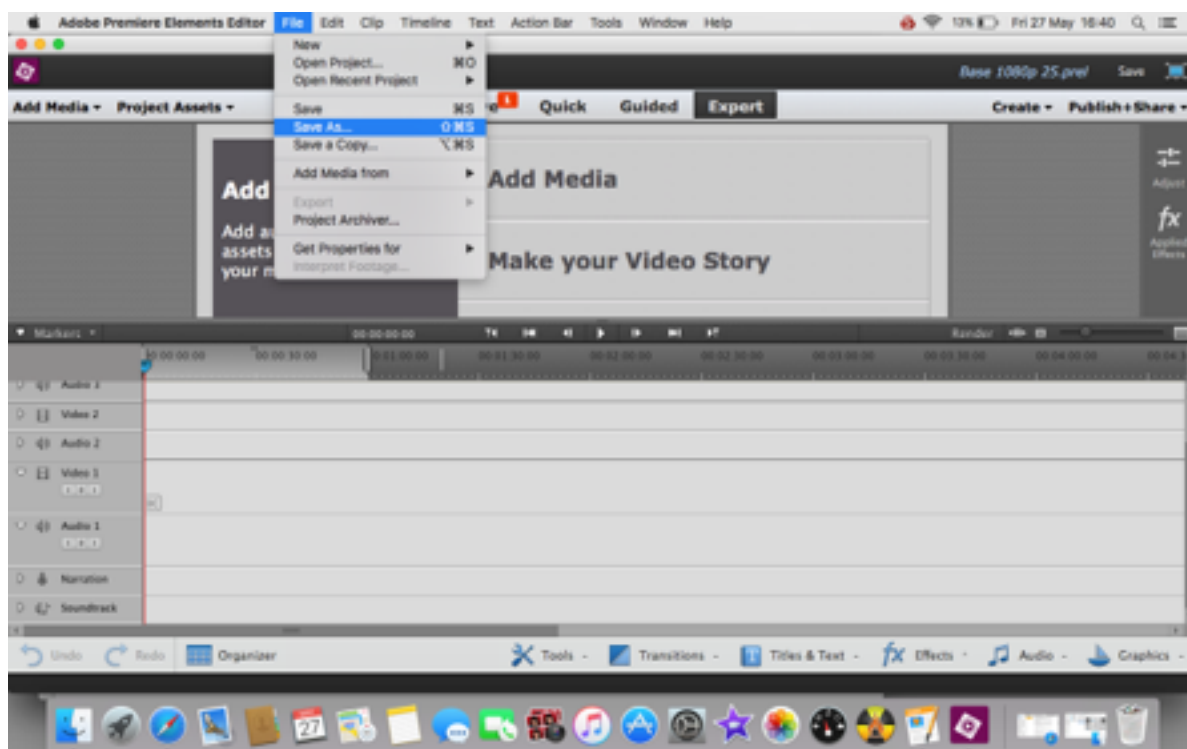
Under the PAL options you find a further DSLR option - this is the one you will use - it permits 1080p at 25fps, which the other DSLR option doesn't. Adobe do like to hide things!



Using 1080p at 25 frames per second saves a great deal of trouble later on. Most DSLRs have the option of using this frame rate. If your's doesn't and only allows 30fps, the use the original DSLR setting rather than the one under PAL, and choose the 30p setting as shown below.



This is where you can now OK the setting and save it. You are now at the clever bit. You have just created a fuss-free way of accessing this set up for any future projects. What you do is now 'Save As' (File-Save As) and give this project a new title, for the item you are going to create. Whenever you open up Premiere Elements you can now open a project and choose your base-project without needing to go through all the above steps to get there.



Adobe have built in some other irritating features, mainly of a rather inconsistent nature. The option for PAL 1080 (1080p) at 30fps is actually under the NTSC lists rather than the PAL lists. They have also carefully hidden (as described) the 1080p at 25fps under PAL DSLR.

Why? Because NTSC is what America uses, and generally tends to use 30fps. If it says 'i' after the frame rate (fps) then it is 'interlaced' video rather than progressive. Many more nations use this PAL system, so stick with it!

The only thing to be careful with is the way your camera captures video. At the outset most cameras were automatically set to 30fps, but this changed quite rapidly to either a choice of fps rates or on some cameras, a default of 25fps. Currently smaller cameras tend to be the ones which use 30fps. It all depends on which model and make you use, so check, and use the appropriate setting when devising your base-project.

Full HD video is 1920 x 1080 pixels. HD is 1280 x 720 pixels - they are both High Definition. It is possible in Premiere Elements to save your own presets for saving your work, but using MPEG4 is the most 'readable' format - a video version of photography JPEG. H264 is the High Definition format.

When saving to a DVD it will be in MPEG2 - but the program will convert your files to that format when creating a DVD. It is a way of compressing the file for showing onscreen (HD TV is only at the 720 resolution!).

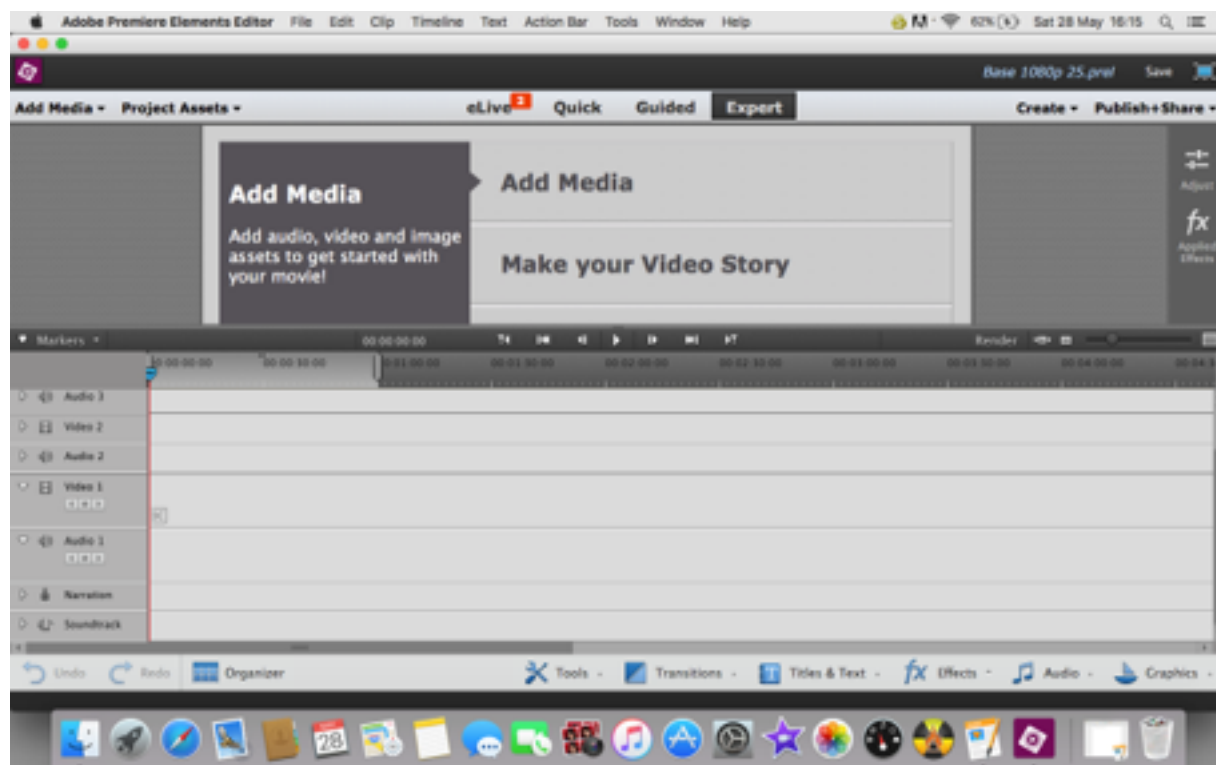
In terminology, the lower figure in the resolution is used so Full HD at 1920 x 1080 is referred to as '1080' video, while HD at 1280 x 720 is referred to as '720'. As long as the proportions remain the same (ie 16:9 for widescreen) even lower resolutions can be used - Vimeo for instance uses 640 x 360 for most files although it can accept higher resolutions - as long as YOU have the bandwidth to upload your material!

Video is space hungry - one minute of 1080 HD video requires 420 - 600 megabytes of space on average.

Video runs at 72dpi, that matches screen resolution - for any screen no matter how large or small. Saving your image files to that resolution is a helpful trick when you need to edit them into a movie - and resizing the images to 1920 pixels on the long side is also useful - although the 1920 size will apply to the 'short' side if the image is in portrait format. Just remember the 16:9 format when you process your images for use in a video. Oversizing them won't hurt, especially if you intend to make them move within the program - it will give you space to 'play' with them. But mostly, there is little need for very large files.

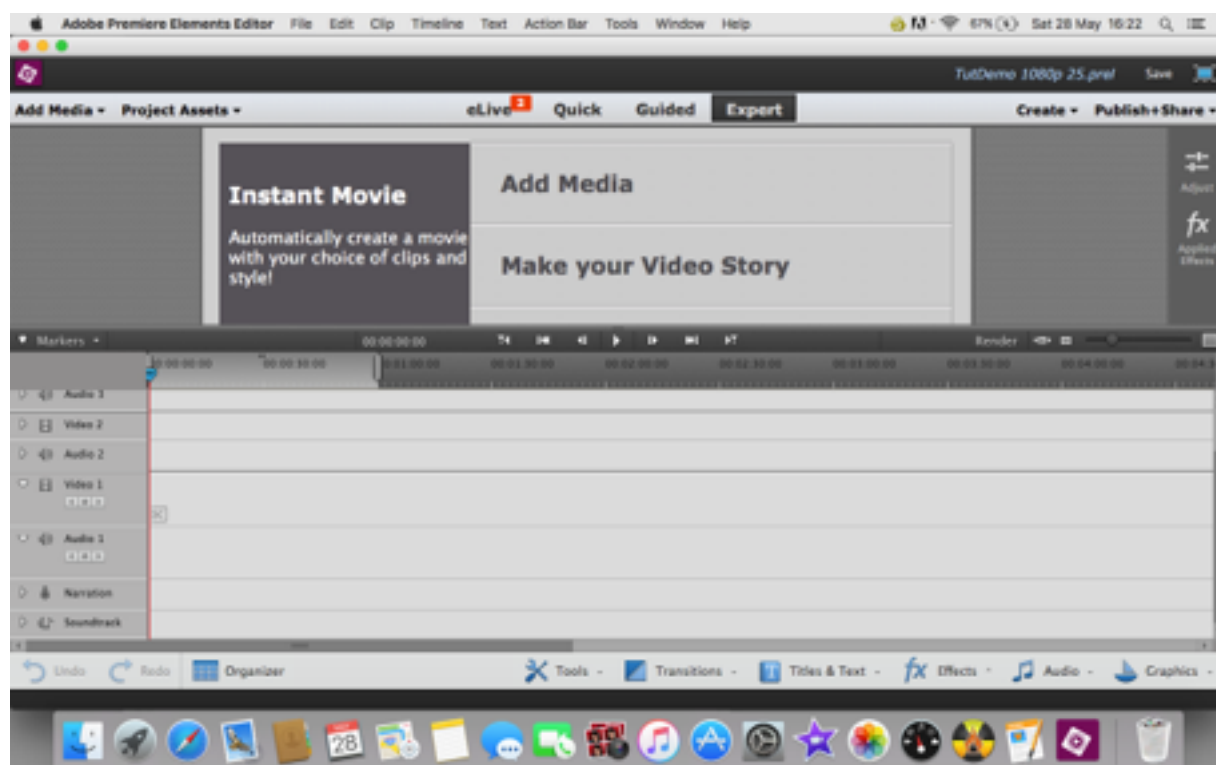
## Adobe Premiere Elements 13 Basic compilation

Open your Premiere Elements program and when prompted, choose either New Project, or if you have followed the tutorial open an Existing Project.



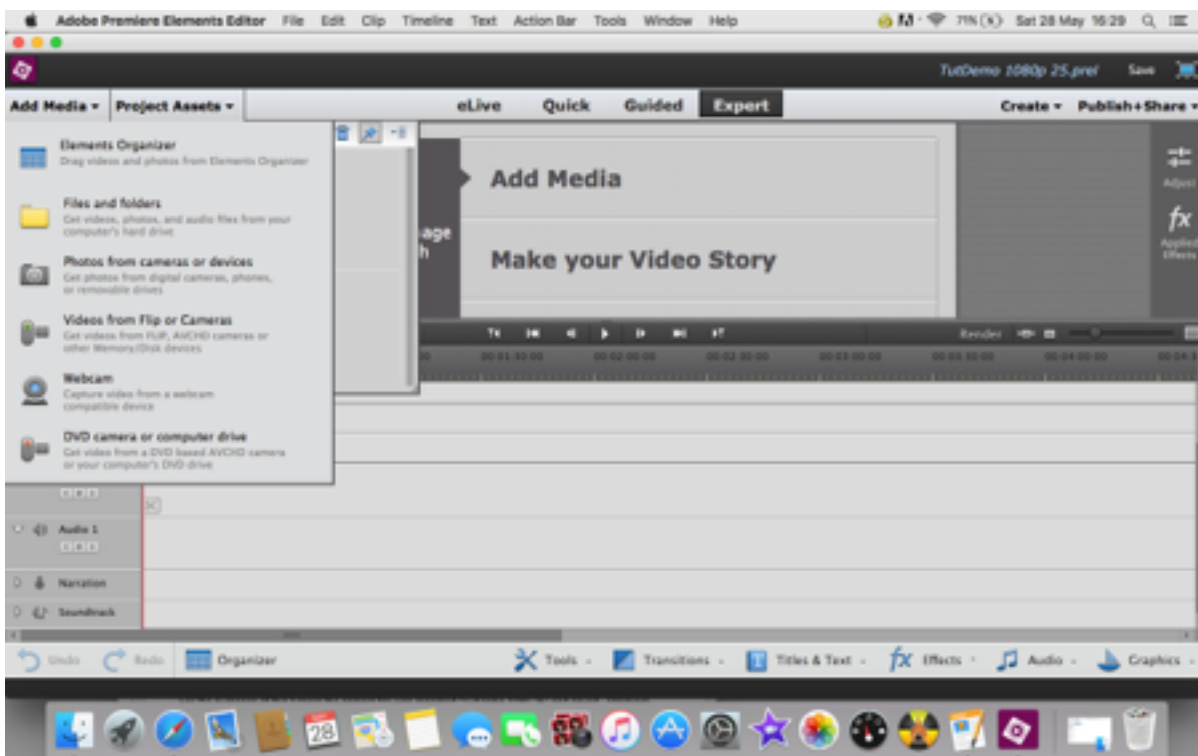
This tutorial assumes you have created and saved a base-project for future use. Look in the top right hand area of the image above, you will see the name of this project, "Base 1080 25.prel". This title is the one used for a project in full HD at 1920 x 1080 pixels to run at 25 frames per second (fps) in PAL.

Before you do anything else, go to File and Save As, and rename the project to remind you what it is about.



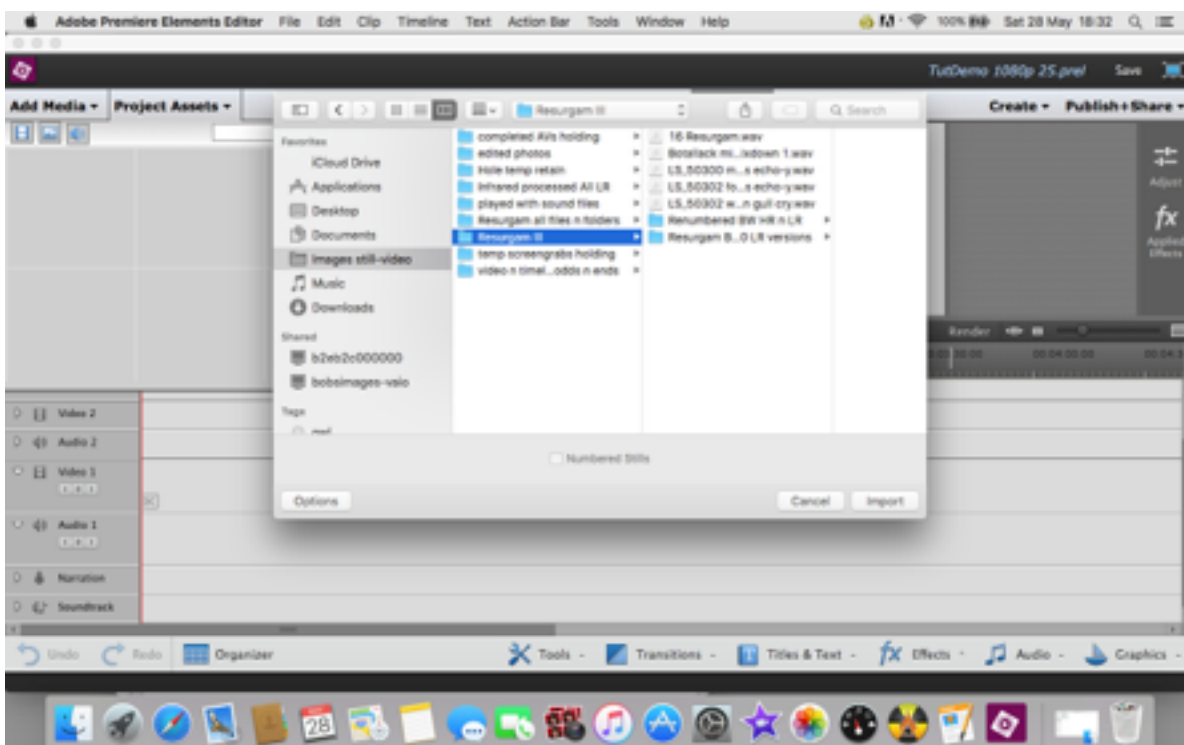


For the purposes of this tutorial the original file was renamed “TutDemo 1080 25” and saved. Premiere Elements automatically adds the ‘.prel’ to denote it is a Premiere Elements sequence, and moves to use it rather than your original file - which is now sitting on your computer unsullied to use for the next project.

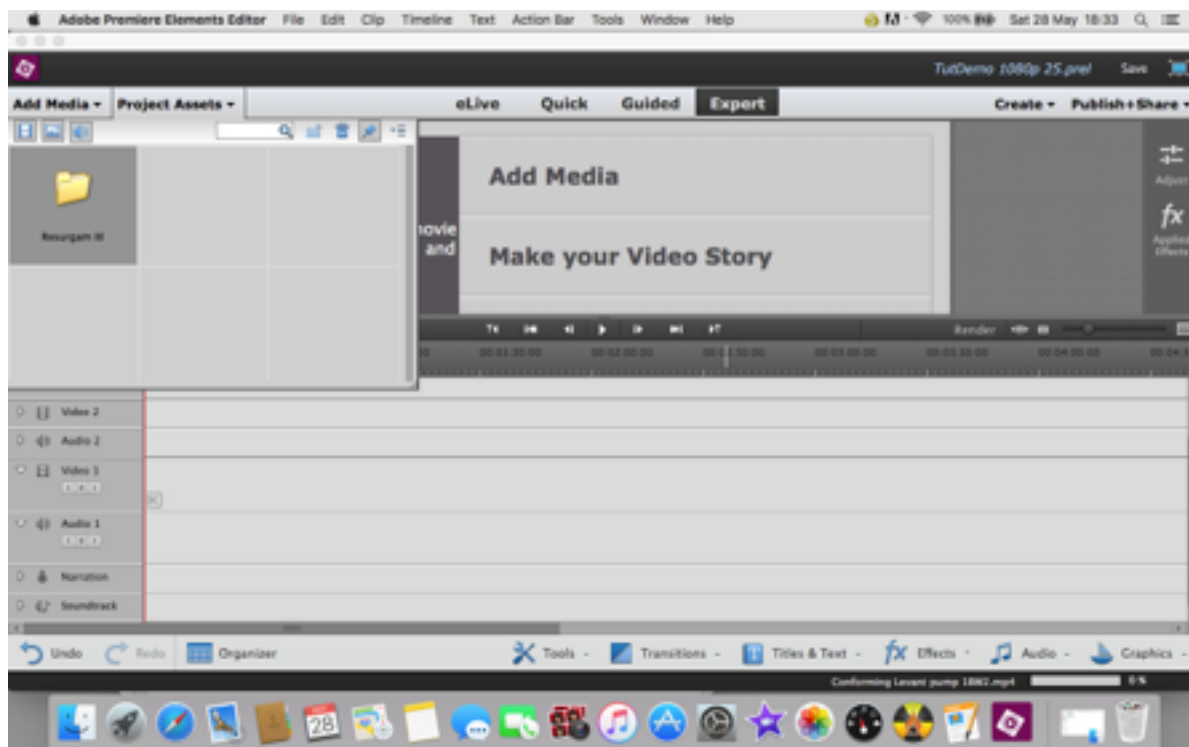


To get started you will need to bring in whatever media you want to use in your project. If you are wise you will have put all the images (still and moving) into a separate folder, and if you are wiser, they will be copies of the originals ‘fail safe’ generally being a very good idea to follow. Include any copies of any sound files you want to use in the project, not just images.

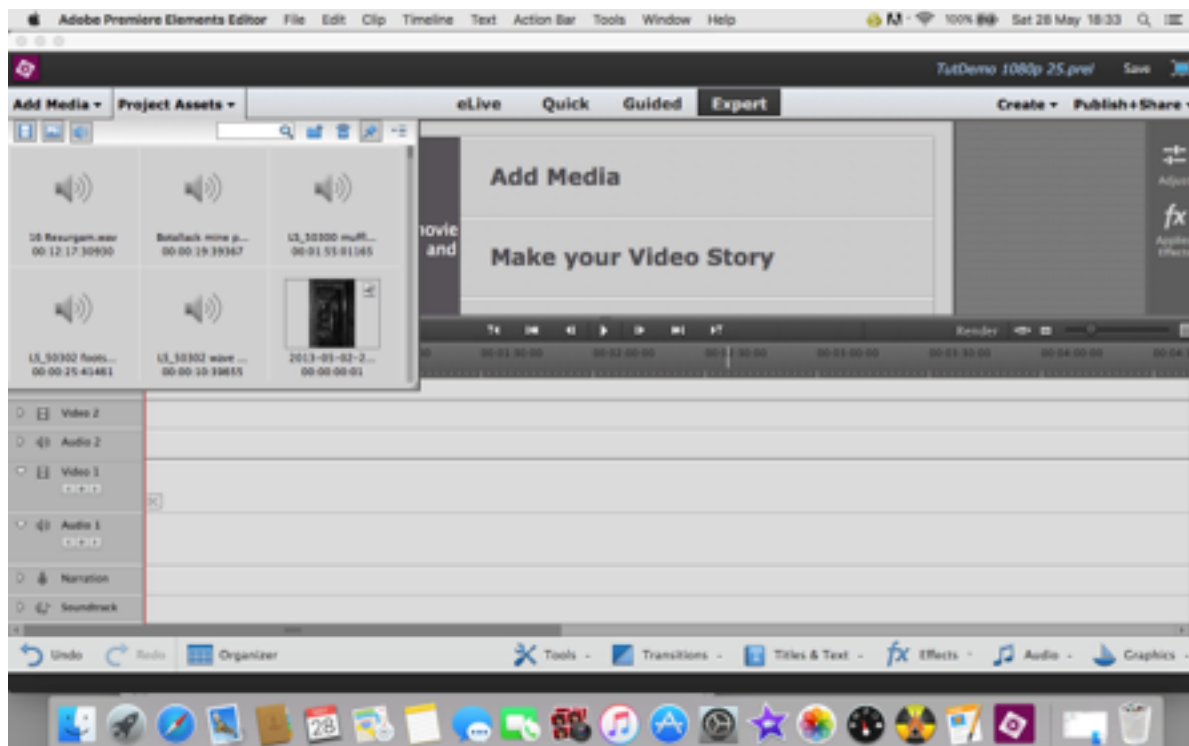
Click on “Add Media” - it doesn’t matter whether you use the large list in the middle of the screen or the tab at the top left, they both produce a list of places you can bring images into the project. If you have placed them all into a specific folder, then click on ‘Files and Folders’. Premiere will automatically search for this folder if you need to close the project and reopen it, and will link the media with the project: it works on a virtual copy system to do this. One very good reason for placing all your images into a single file!



Select the folder where you have your project files and click on import. Then wait a while for Premiere to bring them in - a variable amount of time according to how many files you have in the folder.



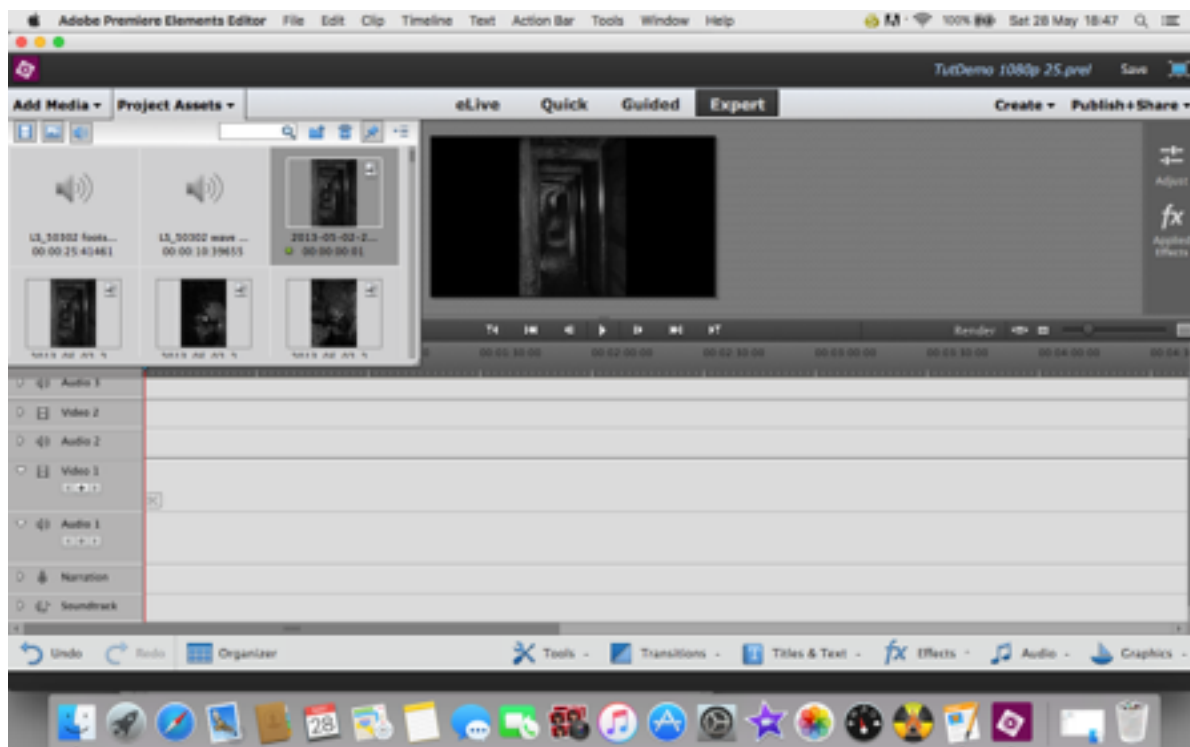
Once the program has imported the folder to the Projects Assets box it will show on the left of the screen. Double click on this folder icon to show the contents - your project files.



That will open the folder and give thumbnails of each of the files. Sound files are as above, showing a small speaker, but images can be seen as thumbnails - as can video files. There are other options to view the files, accessible by clicking on the small "menu" style icon at the top right of this box, but viewing thumbnails is easier to use than lists of file names. There is a slider to the right of the box to drag the thumbnails up and down for selection.



Click on your first choice of image, drag and drop it into the 'Video1' timeline and release the button. It will apparently disappear, but you would be left with a strange red bracket - click on this and drag sideways to increase the duration of the image and make it visible. The red bracket doesn't show in the image below, but the small square on the timeline is where it shows when the mouse button is held down.



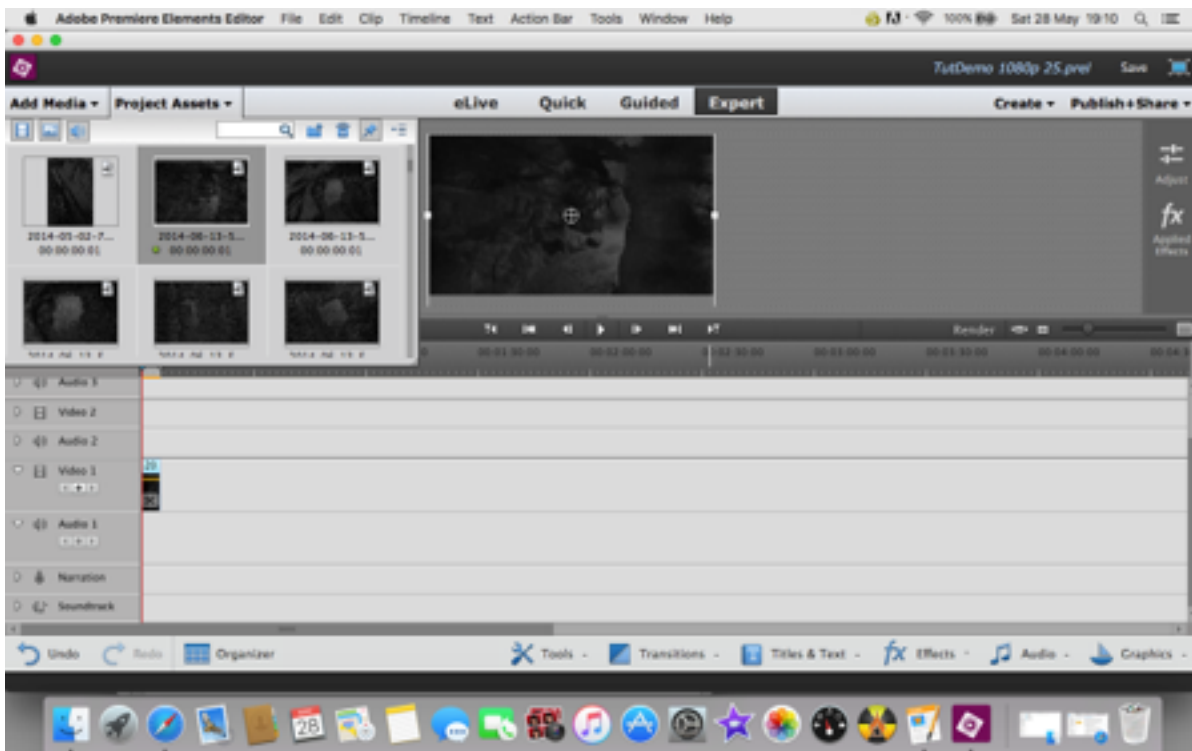
After clicking the red bracket and dragging you are left with a visible item on the timeline - this is the image you have brought in (see below) after the increase in duration.



Notice that there is now a large version of this image in the centre of the screen. This is the play movie area. You also edit items in this area. If the image is not the same size as the black square it sits on here, it must be resized - double click on it to bring up the area definition and 'grab handles' which will be dragged to make the image the correct size.



Before click-and-drag, showing the too-small boundaries.



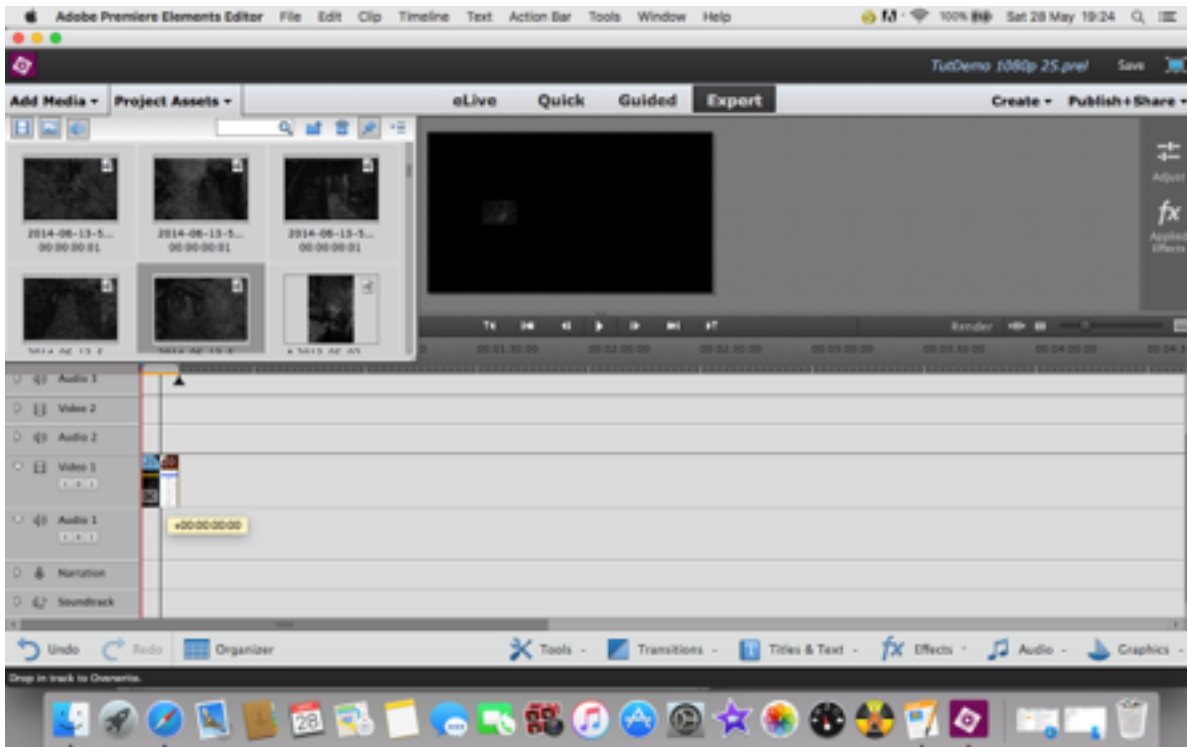
After resizing - BUT the image will need to be moved to the correct position for the intended view of it, because the whole image has been resized proportionately. This is useful if there is an intention to make the image 'move' using effects. Click and drag within the image to adjust how it sits within the frame - but be careful that it still covers all edges when done.

If the duration of the image needs changing, then select it by clicking on the **timeline** image then click on Clip - Time Stretch to insert the required duration of view. Note that the duration is written 00.00.00.00 - which is translated as equalling hours.minutes.seconds.frames. Use whole seconds at least to start with, getting the exact number of frames is very fiddly and needs a great deal of patience to do.

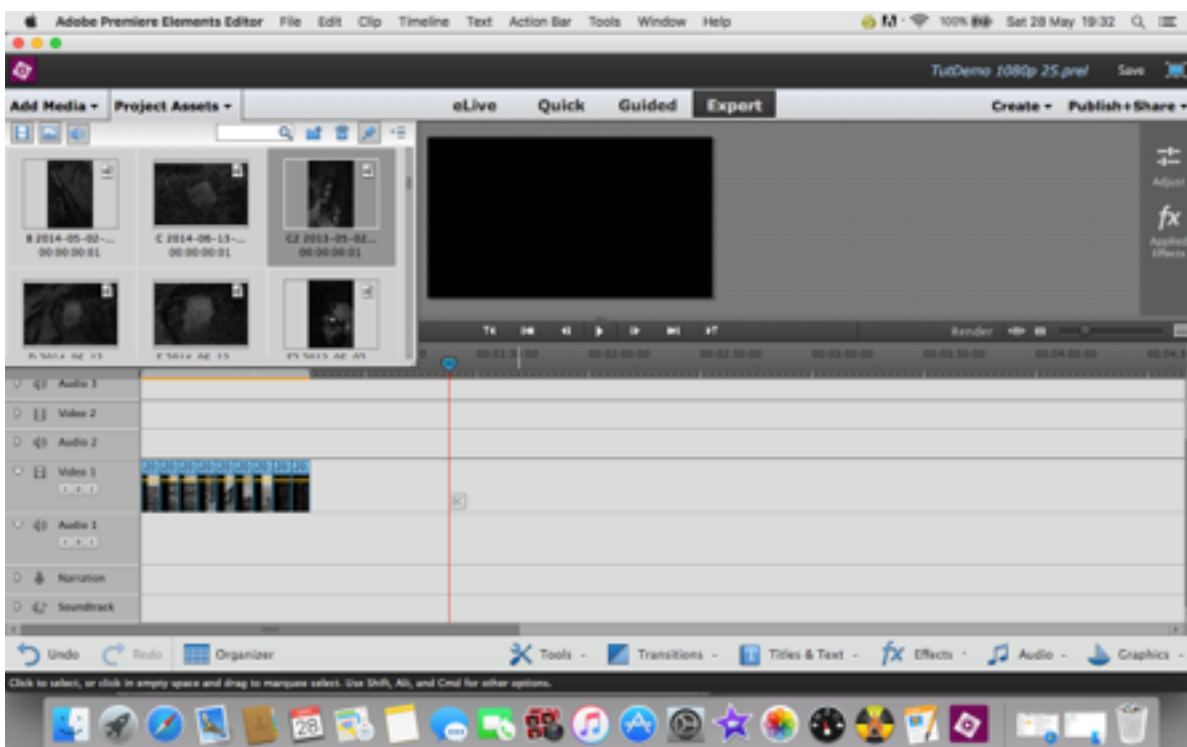
Continue the process of dragging images into your timeline until you have at least the basics of what you want to show and roughly the right durations for the clips.

HINT: bring in all the images you want to use first, stretching each one to visibility, then click and drag over them all to select them, then use the Clip-Time Stretch to give them all a uniform duration. You can fiddle later to vary individual clips as needed.

ANOTHER HINT: selecting all clips or some of them this way allows you to move the whole lot selected along the timeline when you want to insert other images into the middle of a piece.



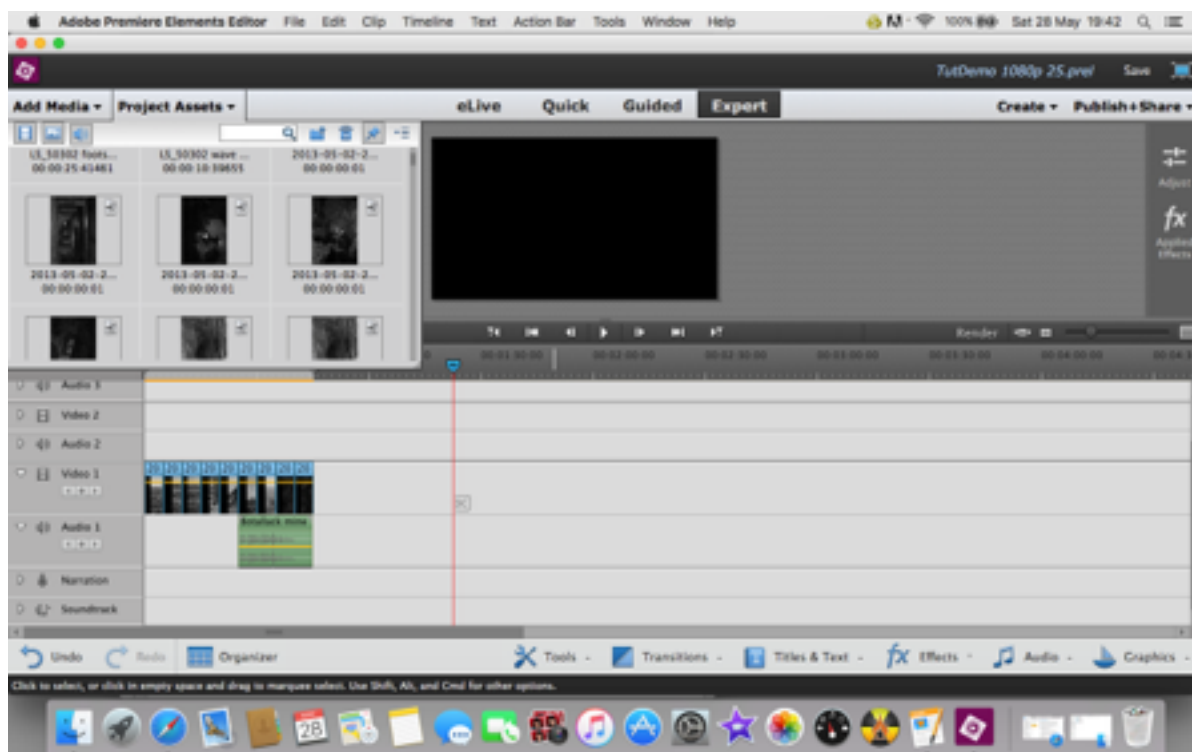
As you click and drag each image you will get a line with arrows as above - this is the 'snap-to' tool, very useful addition which ensures you don't have a skip between images when they transition from one to another.



Your timeline should now look something like the above image. The red line that is to the right of the images is the play head - it hides to the far left of the movie at the start point, but there is a tiny triangle that can be clicked and dragged - this is referred to as 'scrubbing' to show how the intended video is progressing. In the above image it has been moved there to show what it looks like! as it passes over each image, that image will show in the play window above.

Along the bottom of the screen are several icons which are used to create transitions, effects and other useful tools. You will need these later, so click on each and see what is there - and play with them. If you don't like or understand what you have done, go to Edit - Undo.

The next step is to add audio to your project. This is done in exactly the same way as adding images - only this time it is dropped onto the Audio1 timeline. The file can then be dealt with in exactly the same way as for images - BUT - if it is time stretched you will alter pitch. This is where you must cut the file to shorten it or it will sound wrong (unless of course you want it to sound that way!).

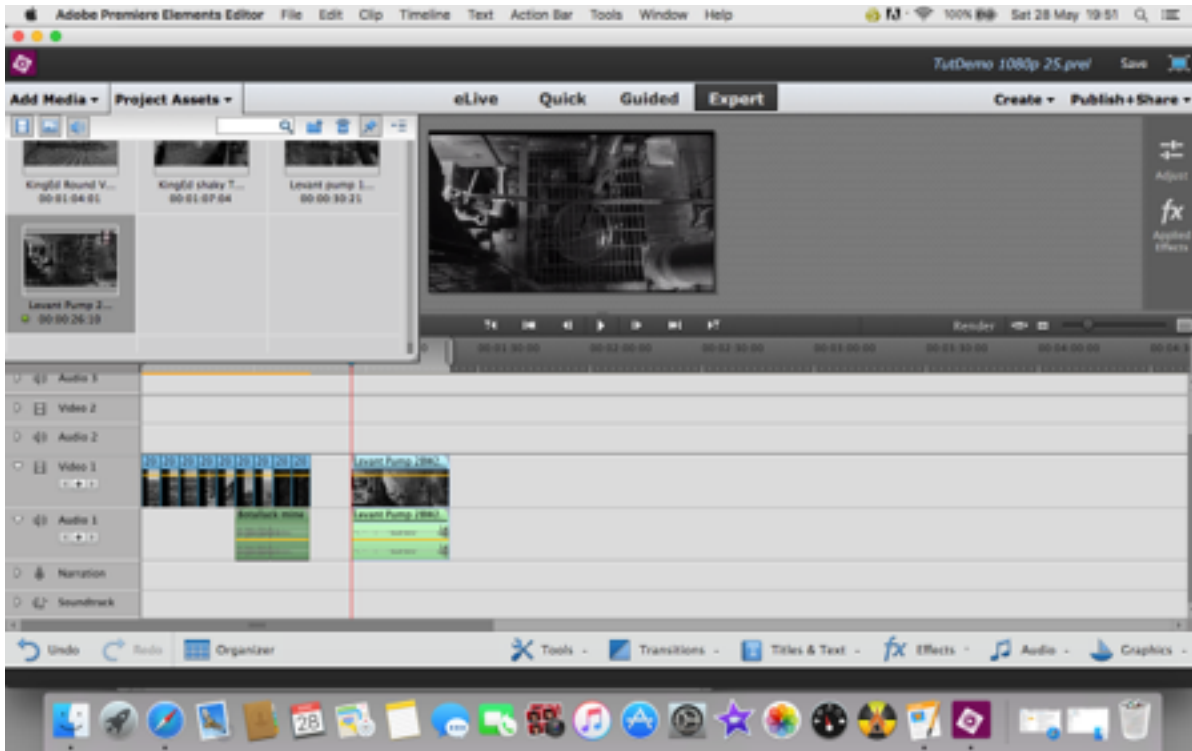


Sound files show as a green file rather than the blue of image files.

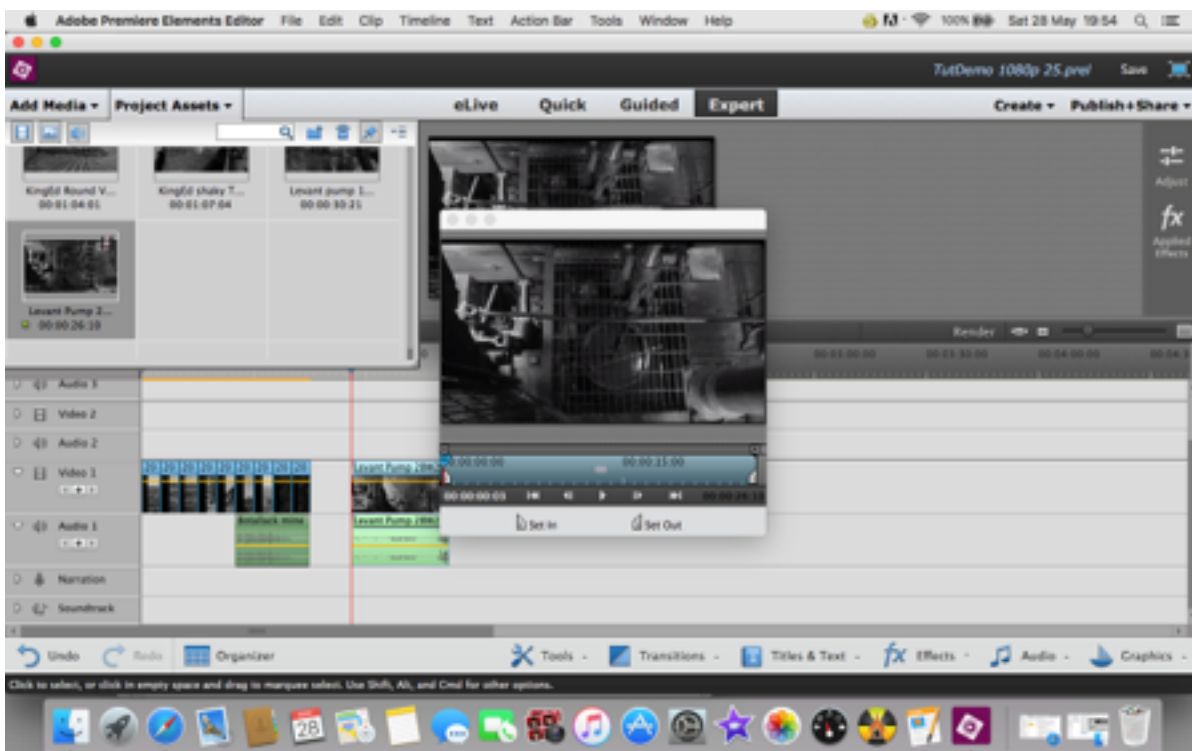
Adding movie files is as easy to do, but they will require editing in a slightly different way. As a generalism video clips should run for 10-15 seconds only. If an ongoing action is being followed (e.g. following a predator catching prey) then the video can run for a longer time - but there has to be a good visual reason for extending that run time.

That means that video clips will need to be cut-to-fit as do sound files.

The image below shows a video clip of 26 seconds duration. Some of it is slightly shaky at the start and end, which bits need to be removed. About 10 seconds of the 'best bit' is required for the project.

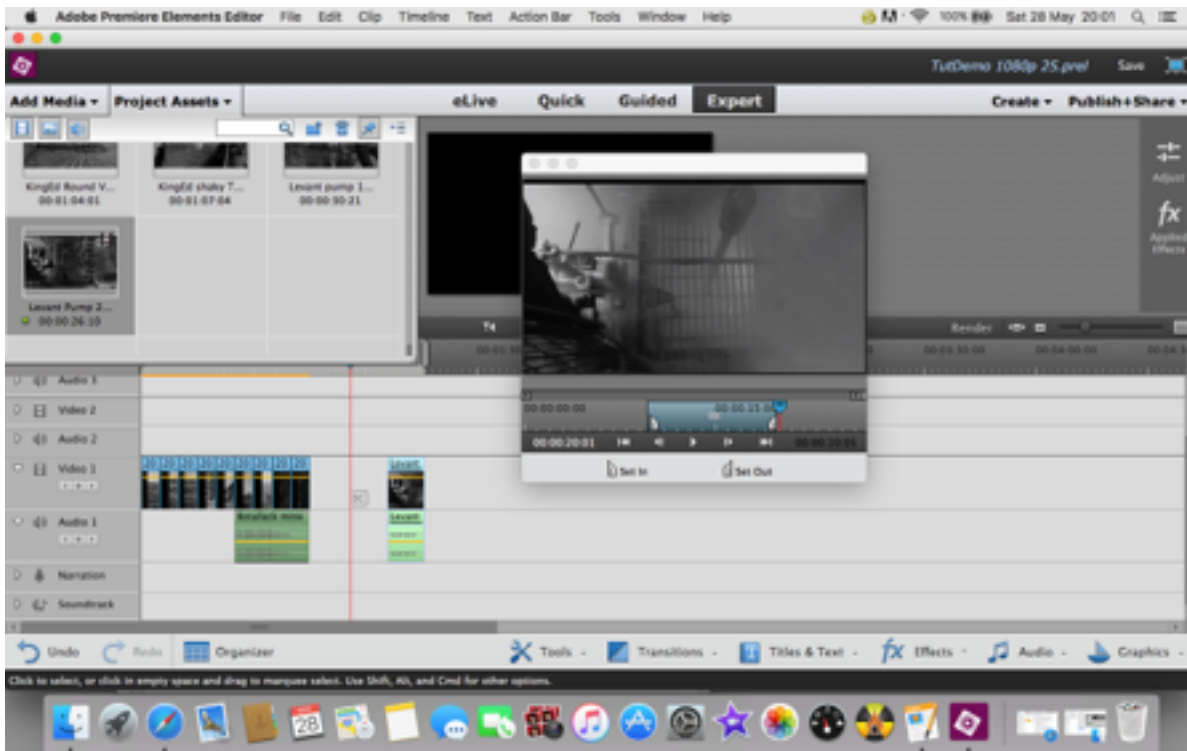


Double click on the **timeline** icon to bring up the editing box on screen.



Take note of the controls: you can drag the play head across the clip, or use the standard play button to view the clip. It is worth doing that just for an initial preview of the whole clip to choose the best area or avoid the worst areas of the clip. Look below the box and standard controls - there are 'set in' and 'set out' icons which look like razor blades - they are just that. Using the play head or play/stop buttons move the play head to the point at which you want to start your chosen clip, and then click on the 'set in' point. then move the play head to the point that you want to stop your clip, and click on the 'set out' point. This automatically shortens the clip to the desired part on the timeline (see below). It can now be dragged into the project where desired. Close the editing box by clicking on the top left corner 'red x box'. If it is really shaky, there is a very useful tool to stabilise the video Tools-Adjustment-Shake Stabiliser. It works remarkably well, although it can't do the impossible.



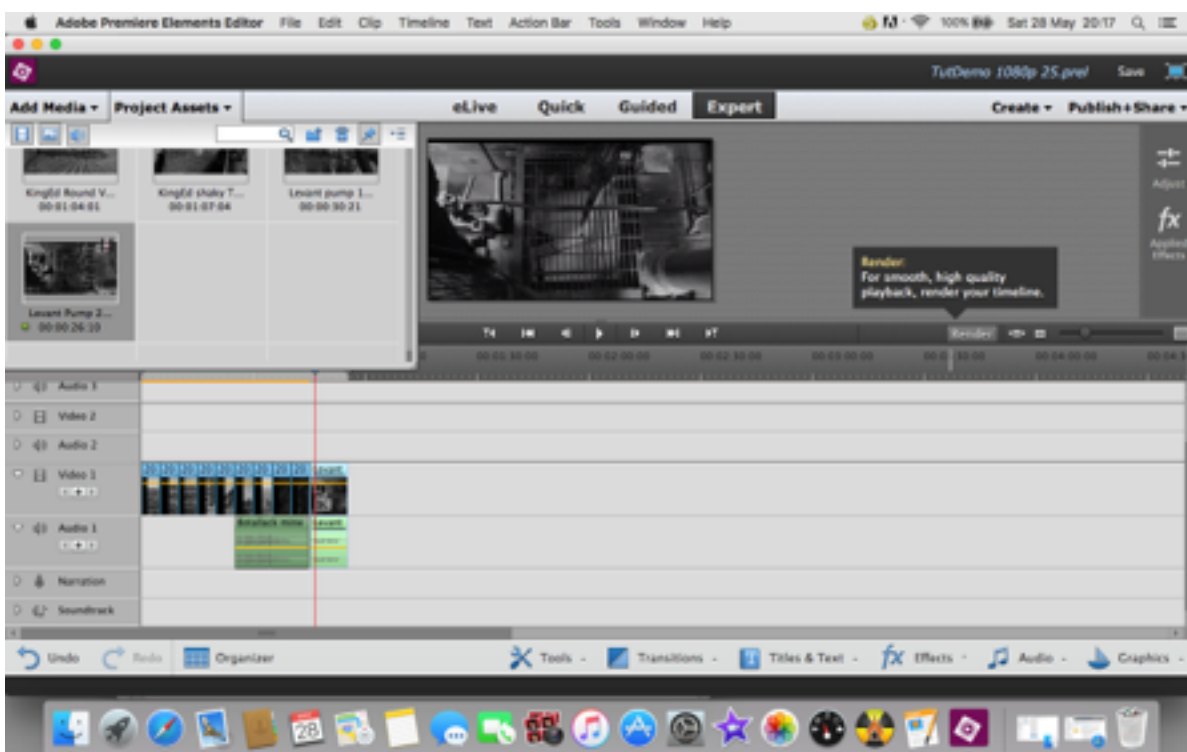


You can now apply any transitions (or effects) to your images.

Transitions - there are separate ones for video and audio files - keep them simple and slick for preference. Cross dissolve (fade through) is commonly used but too much of it can send the audience to sleep. Dip to black is useful at the ends of a video. Or simply don't use a transition. The sound version of cross dissolve is 'constant power' - the audio transitions are also found under the transitions tools icon.

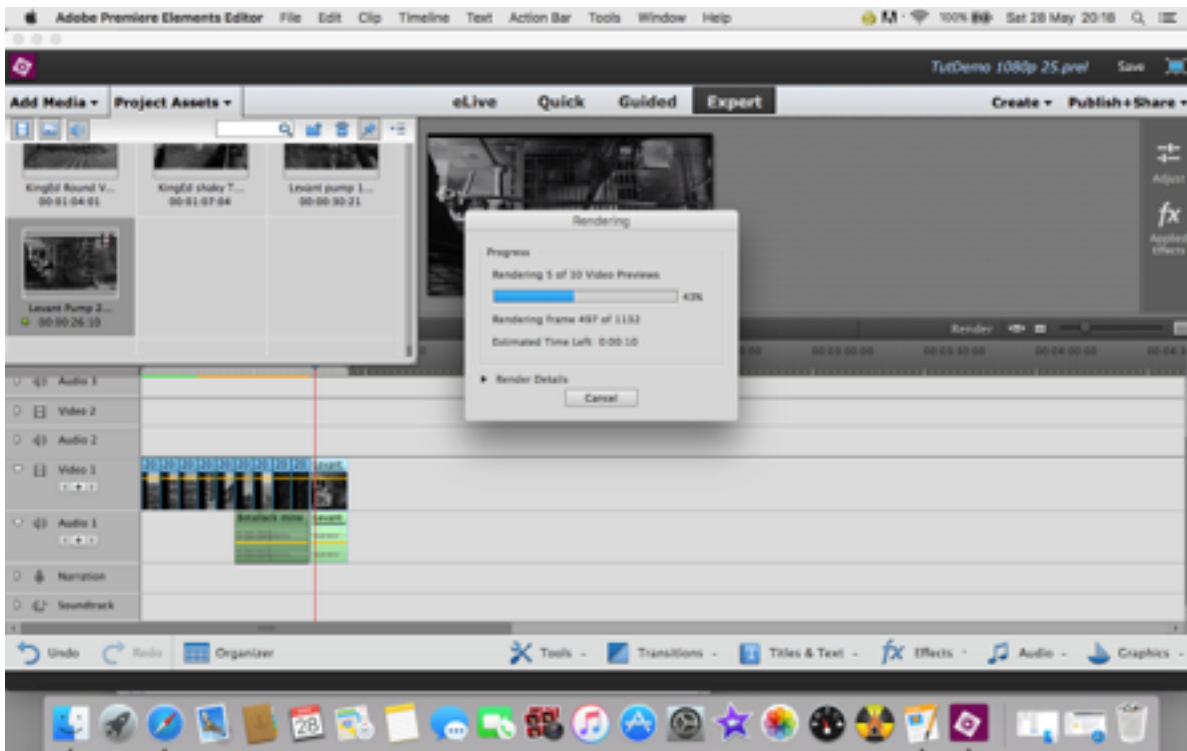
Some ready-made music is available for use - under the Audio icon.

At the end of your project you will need to get it out to your public. First, though, you **must** render the project - this 'consolidates' your work to run smoothly.

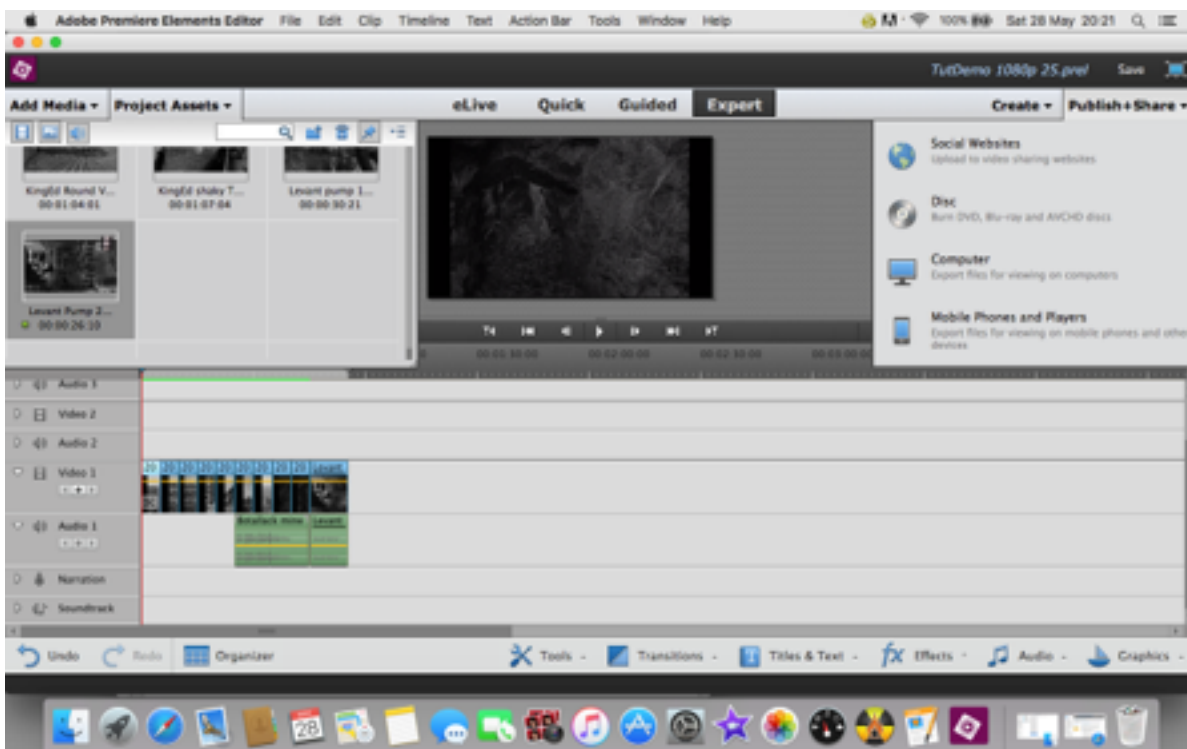


The button to do this is at the top right of the timeline area - use click on it and wait - it will take a while, depending on the length of your project.



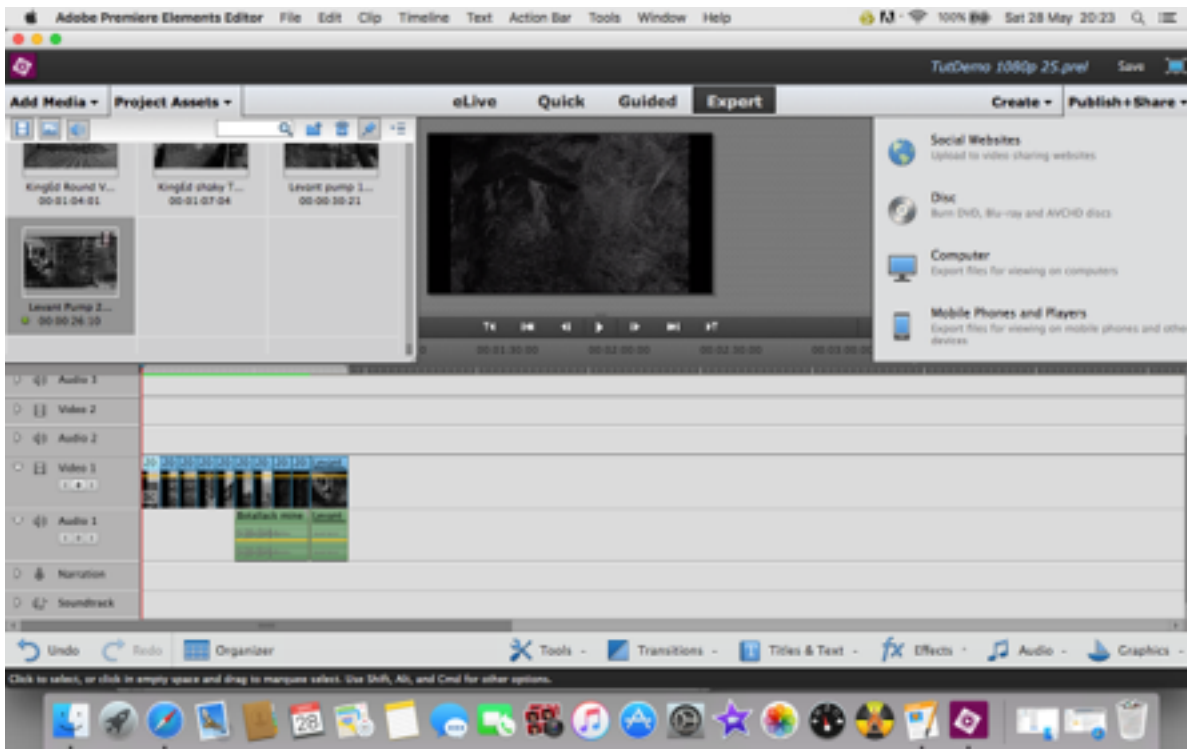


But it will tell you what it is doing and how long it will take. Having a cuppa is a good idea at this point!

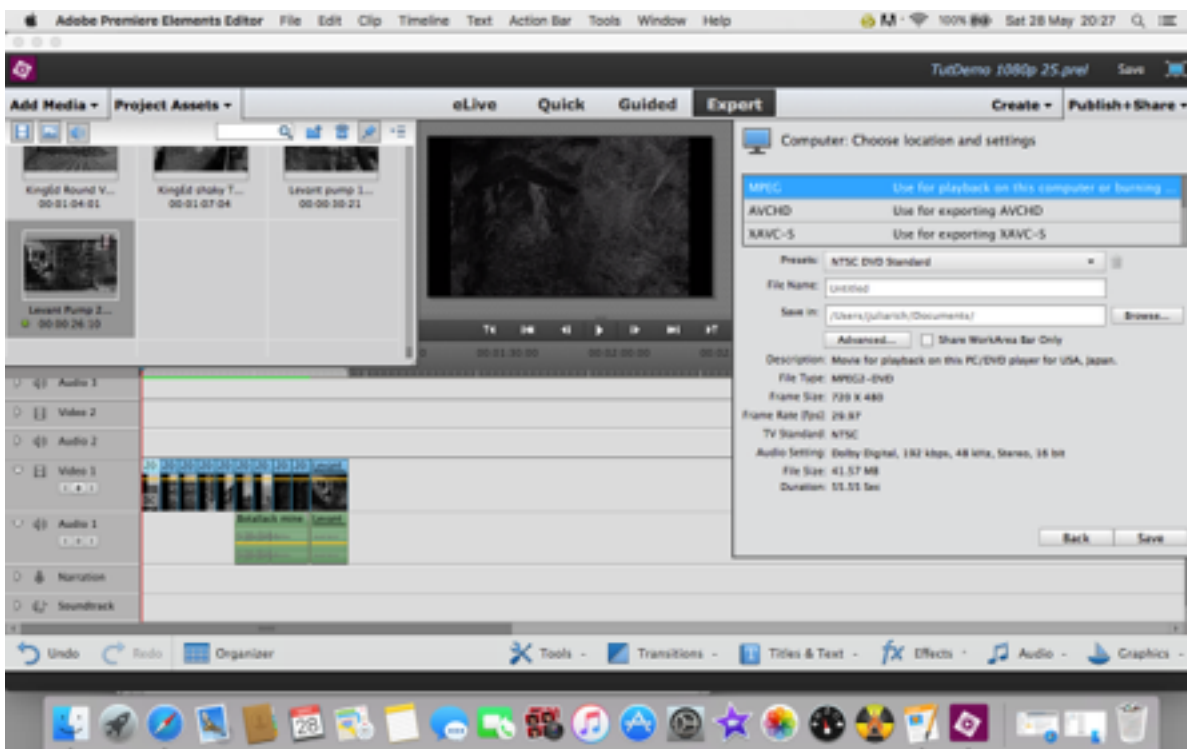


Now it is rendered, it will give you a quick play through automatically - do watch, just to check it is as you want it. Rendering can be done at any other time if you want to see how the project runs and particularly if you are adding any effects.

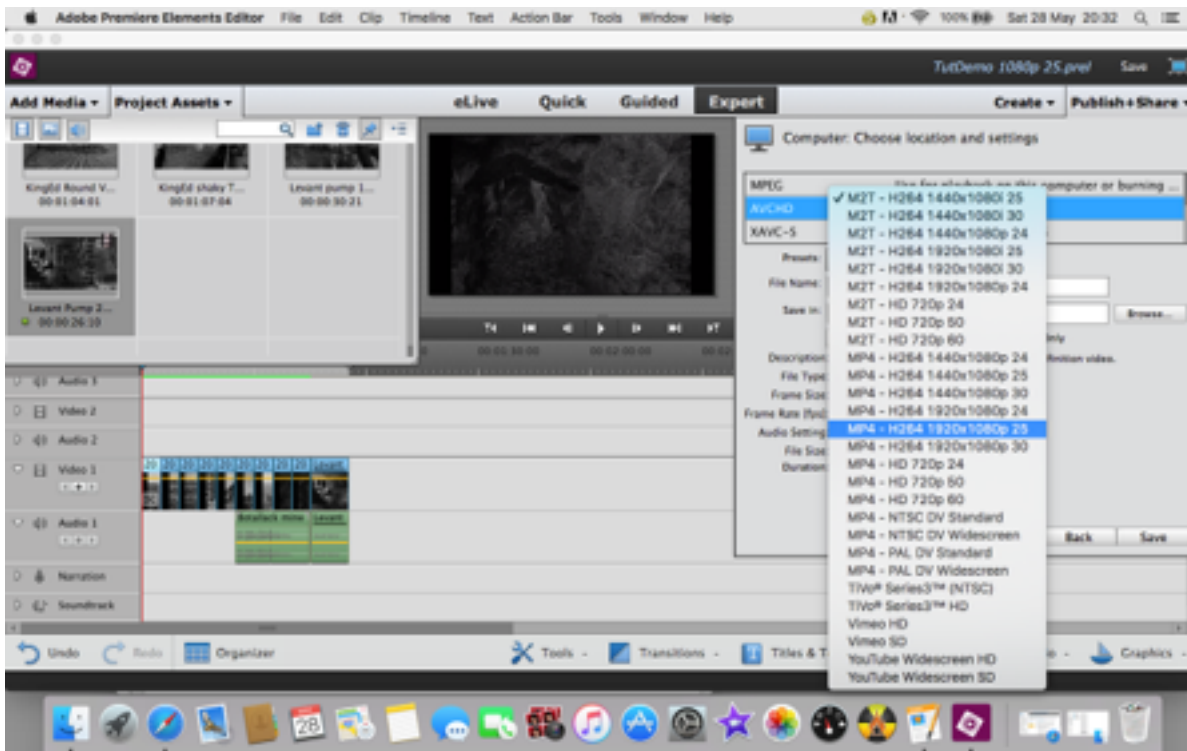
Now you will 'Publish and Share' your work. Go to the top right of the screen where you are given the 'publish and share' title - click on it to drop down the options box. This is where it will be a little complicated, you will need to decide whether you want to save the work to a DVD immediately or just create a file that will go elsewhere (or else wise like on a memory stick).



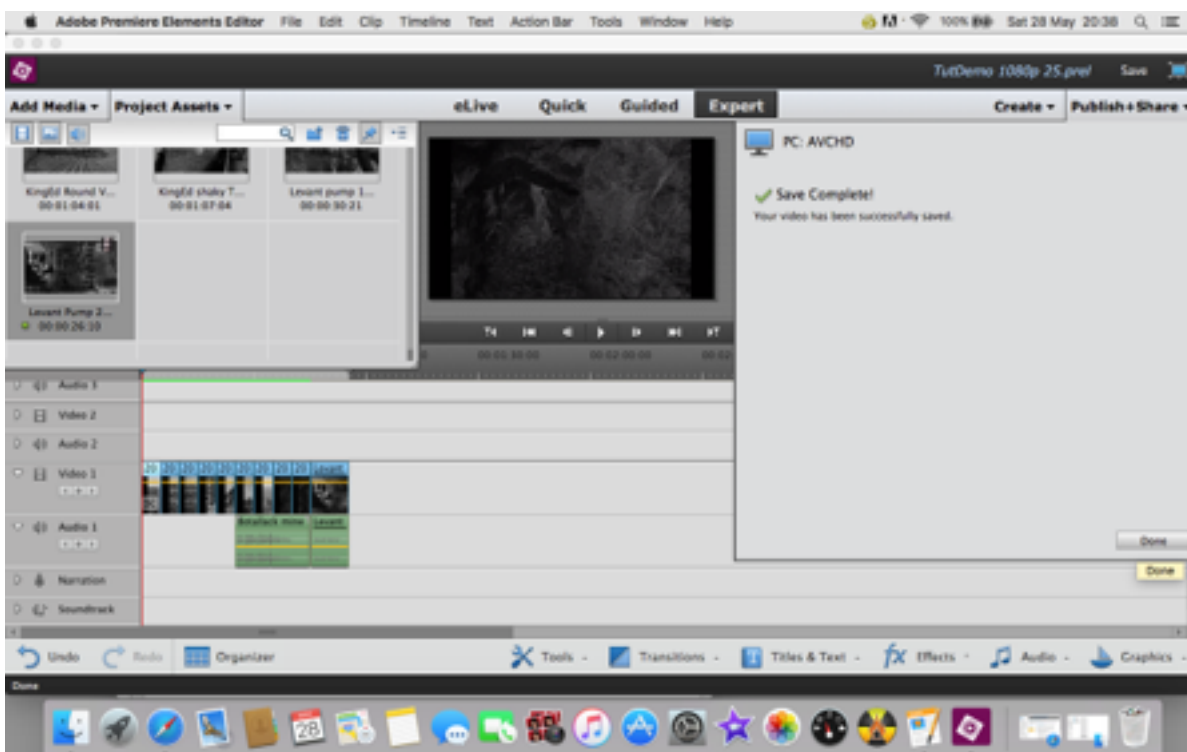
At this point, choose 'Computer' - we will save the file as a simple MPEG4 item to share.



You will be faced with a large number of choices - most of the default settings being (of course) for the American users. Once more the desired option is somewhat obscure. Don't use the MPEG option on the drop down, go to the AVCHD option and click on it.



This will drop down a further options box, where you will find the choice of MPEG4 H264 1920x1080 25p - choose this setting. Then choose where you want the project saved and name it. Click on Save.....and wait.



It will tell you when the save is complete. If you burn a DVD the process is similar but rather more guided, and just as obscure if you have no insights into how it works. If in doubt take a look at the Adobe site - there are useful tutorials there. Prove you have completed the task by going to the file where you have saved it, click on it and it should play. If not.....back to the drawing board but don't kick the tutor!

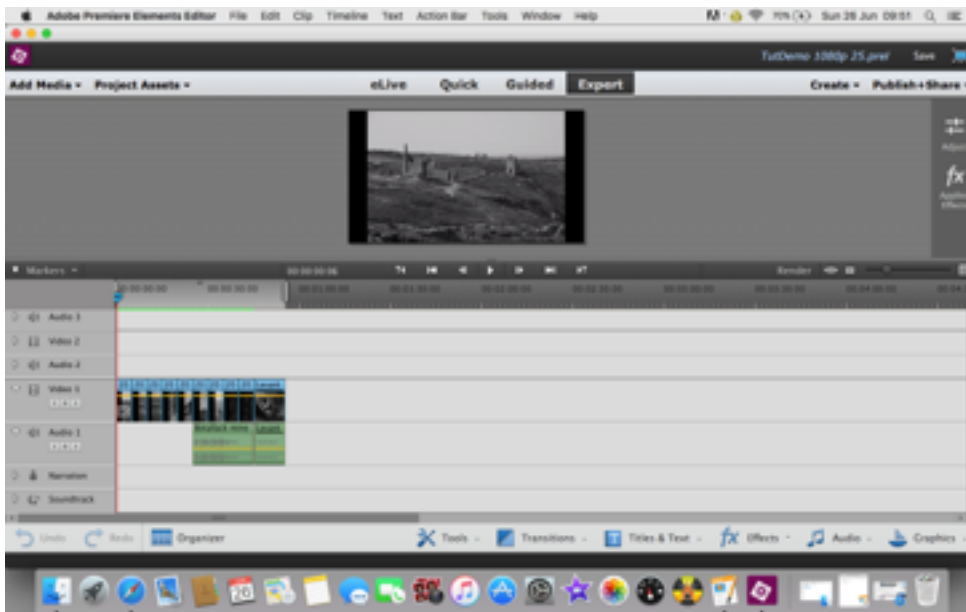
<https://helpx.adobe.com/premiere-elements/using/set-duration-imported-still-images.html>

## Premiere Elements 13

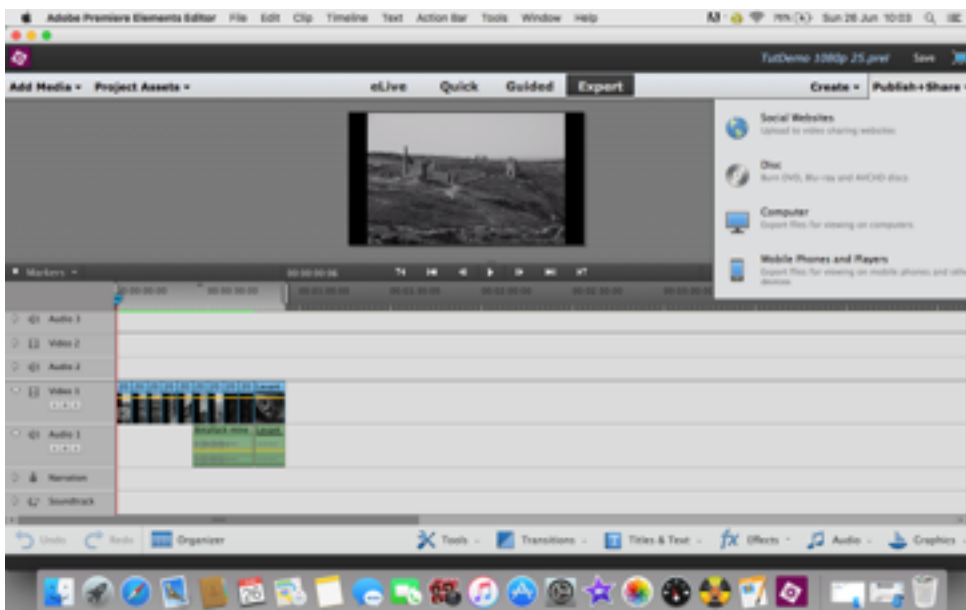
### Setting Up Your Own Customised Save Option

This tutorial assumes that you have created your AV/video and are intending to save it. But, you need a customised version of the save options, such as a slightly different size than what is offered in the presets. This particularly applies for AVs intended for competitions, which currently (2016) need to be in MP4 format and sized to 1400 x 788 pixels at 72ppi (or dpi) for projection. This tutorial can be used to set up a variety of different options which will give you a quick and easy way to get the right format once set up.

To clarify “MP4”: this is the video codec (format!) that is equivalent to JPEG in still photography. It is easily viewable on the vast majority of computers and devices. There are several differing ‘codecs’ (a contraction of ‘code-decode’) some of which are common, some which are specialised, so using MP4 cuts out a great deal of worry.



This is how the screen will look once you have created your AV/video and have reached the ‘save’ stage.

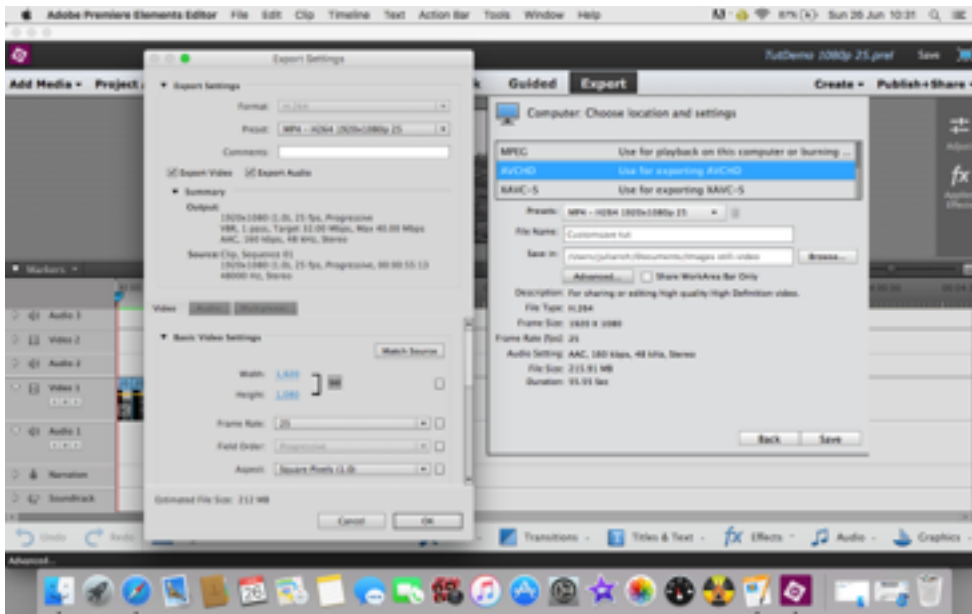


Go to the top right hand corner of the Elements screen, to the Publish + Share button, click on it to give a drop down of saving options.

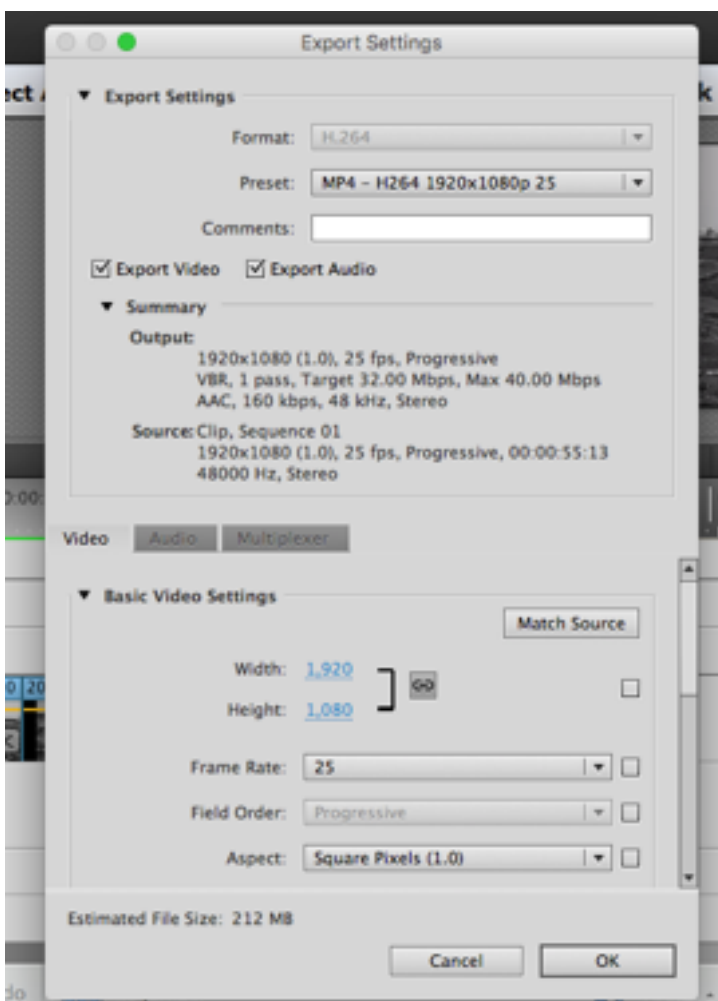




If you haven't already given your project a name, you can do so now in the File Name area, and check that it is going to the right place on your computer in the Save In box.



The next step is to click on the Advanced box. This will give another pop-up where you can tell it precisely what you want it to do, now and in the future.



The preset boxes will show you the current setting - the one you have already chosen as the MPEG.

The technical information about that preset is below them. Always leave the Export Video and Export Audio boxes ticked.

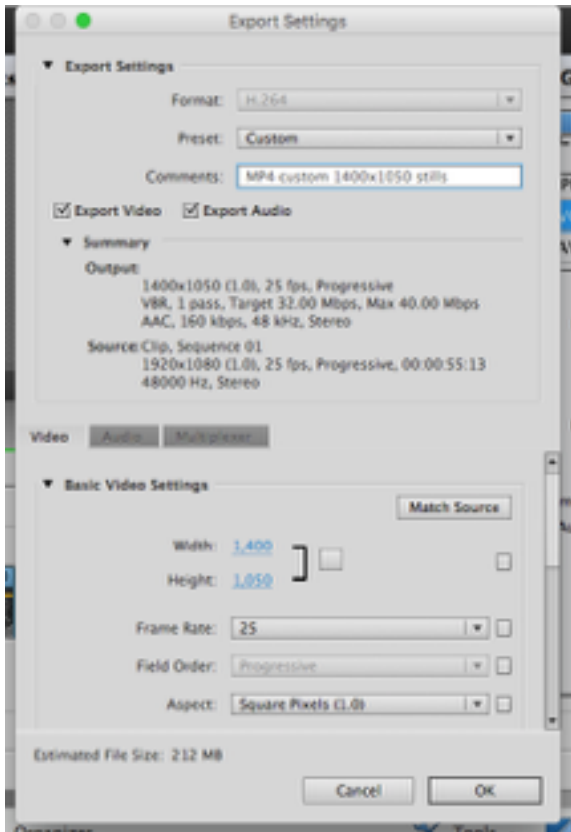
You will need to add your own comment to the box (white) before you save your own preset version - telling yourself what size it is and what it is for is a good idea.

Now look at the area labelled Basic Video Settings. This is where you will make the changes to the preset to suit what you need. Some of it will be left alone - Field Order and Aspect don't need changes.

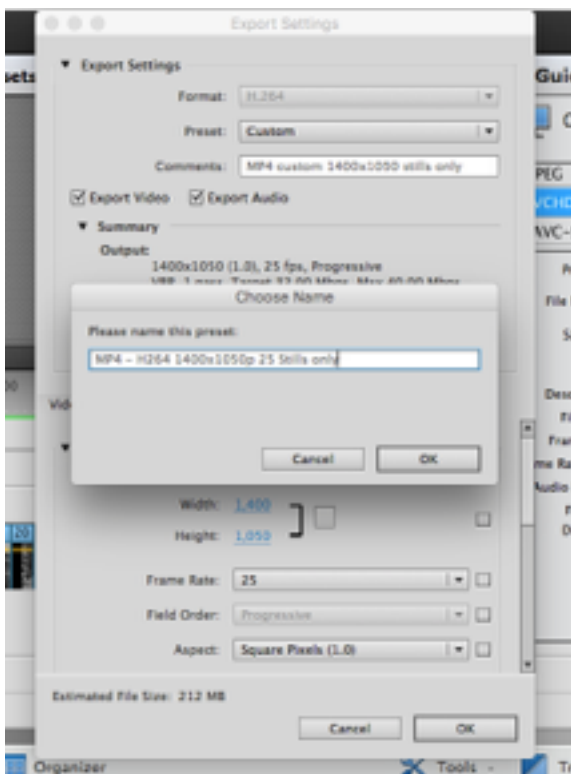
What you will change is Width and Height (in blue). Click Width first and put in 1400. Then click on Height and put in 788. This will give you a 16:9 ratio format which matches VIDEO HD formats, but within the size used currently. Use this setting if you intend to use any video within your AV.

If you are certain that your whole AV will be created from still images, then make the Width 1400 and the height should be 1050 to match the projected image sizes required for DPI competitions. For still images only sizing you must click the small box to the right of the Width and Height to unlock the preset ratio.





Note the changes to width and height, and the unlocked ratio box.



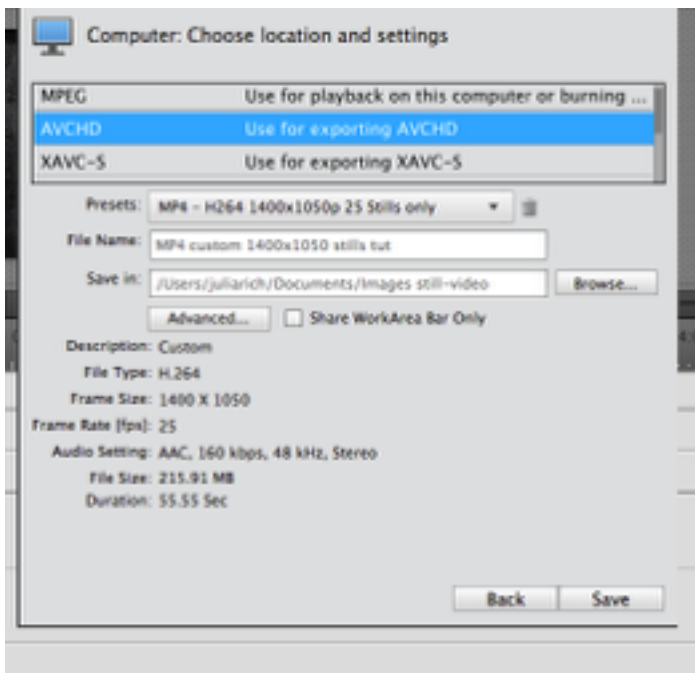
When you click on the OK button you will get a further pop up which allows you to save the custom preset. Name it here - in this case it has been called

MP4 custom 1400x1050 stills only

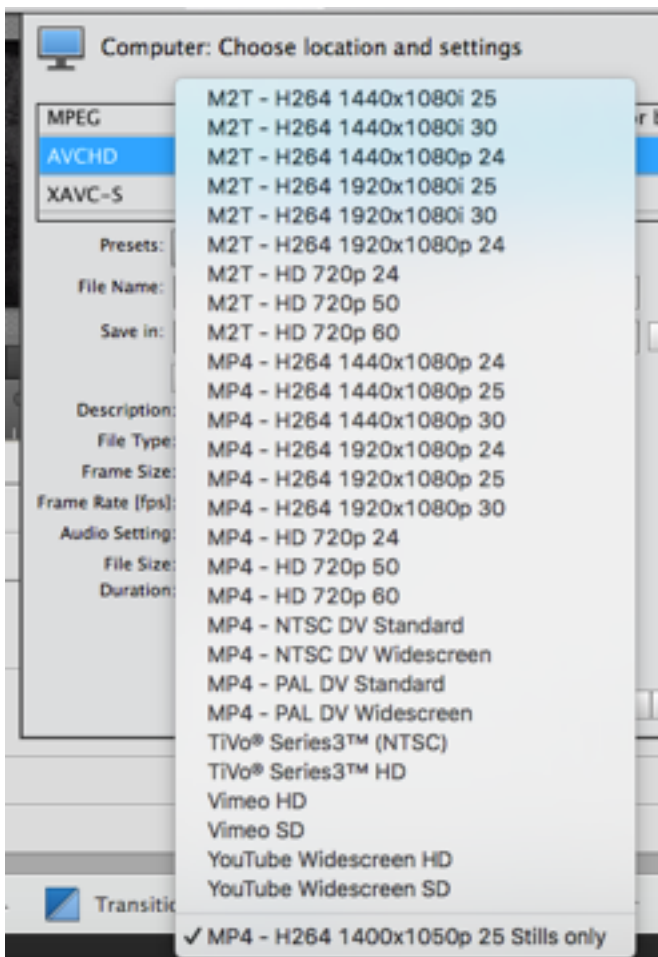
to denote to the user that the format is the normal ratio used for projecting stills.

(A further preset can be created at the same time before saving your AV - if you are intending to use the 16:9 video ratio. The name can reflect the intended use. If you don't want to do this 'now' then make one later on).

Note: using the video size you create doesn't mean you can't use it for still images, it just changes the size to a 16:9 ratio i.e. a slightly 'letterbox' shape.

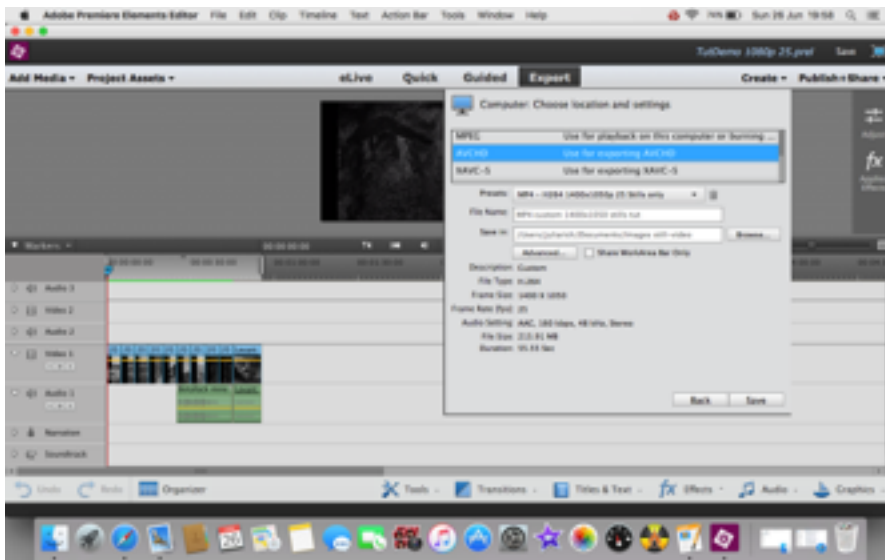


When you OK your custom preset in the previous screen, you will now see that it appears in the 'preset' box instead of your original 1920x1080 choice which you worked from to create the preset. This will stay as your custom version as a choice in the presets for future use.



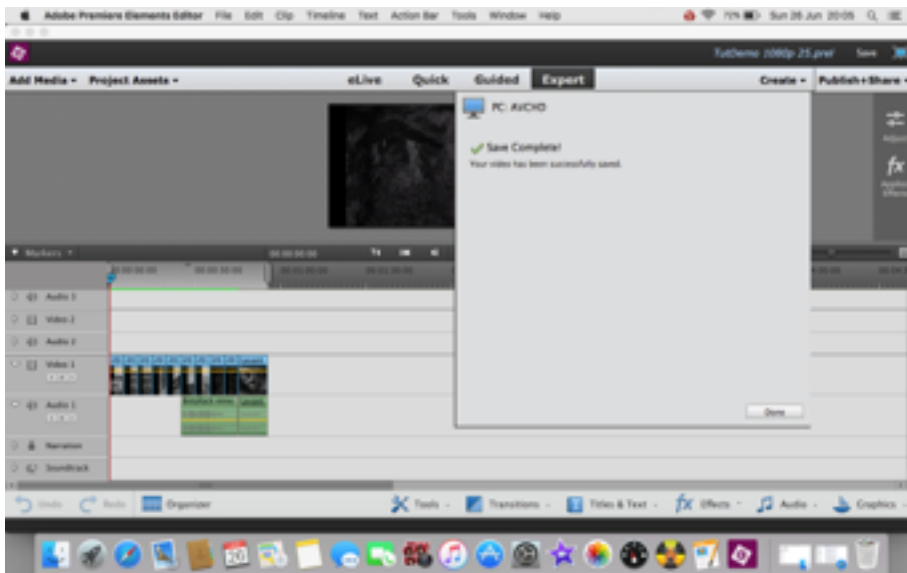
If you want to check that it has been saved, click on the Preset box - you will find your new custom preset at the bottom of the list, waiting for you to use it at any time.

To quit the drop-down, just (carefully!) click away from it somewhere else on the screen.



Now name your project if you didn't previously (its good to double check) - and check that it is still going where you want it on your hard drive.

Click on 'save', and wait whilst it is rendered (turned into the chosen format) and saved by Premiere.



Hooray. Success! If you go to your folder where you saved your AV, you should find it, and be able to play it simply by double-clicking on it.

## SUGGESTIONS FOR PRESETS

Using the above system, try creating a variety of presets - but ensure you use the PAL (p) system (unless you are living in the USA). You can set whatever figures you want, but keep in mind the required ratio between them, using the wrong ratio will alter the shape of the images and can make them very strange.

1400 x 1050 = current (2016) still DPI for projection.  
 1400 x 788 = 16:9 ratio for the inclusion of FHD or HD video in the AV.  
 640 x 390 = very low resolution suitable for attaching to an email (but be careful that the finished file is within your email provider's allowance)

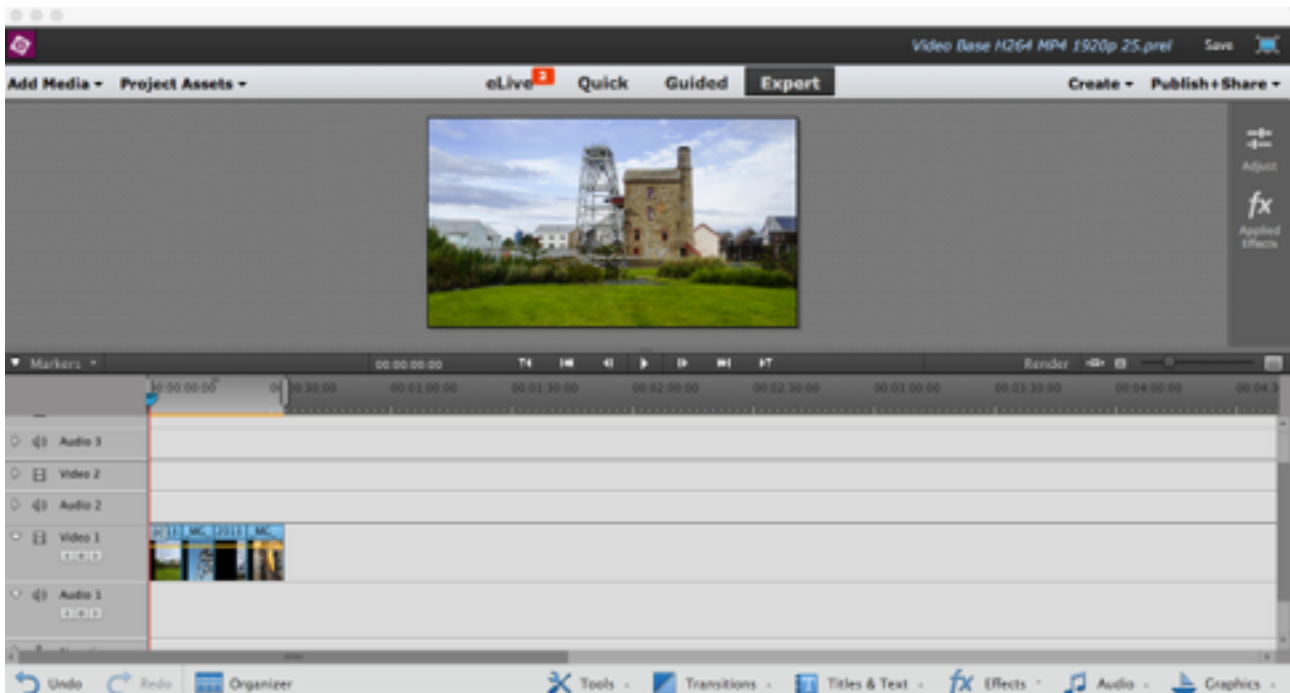
NOTE: If you intend to burn a DVD of your work, then you would use MP2 codec not MP4. These MP2 codecs are found under the MPEG settings, not AVCHD. Otherwise the system is similar.

## Premiere Elements 13 - Using Effects

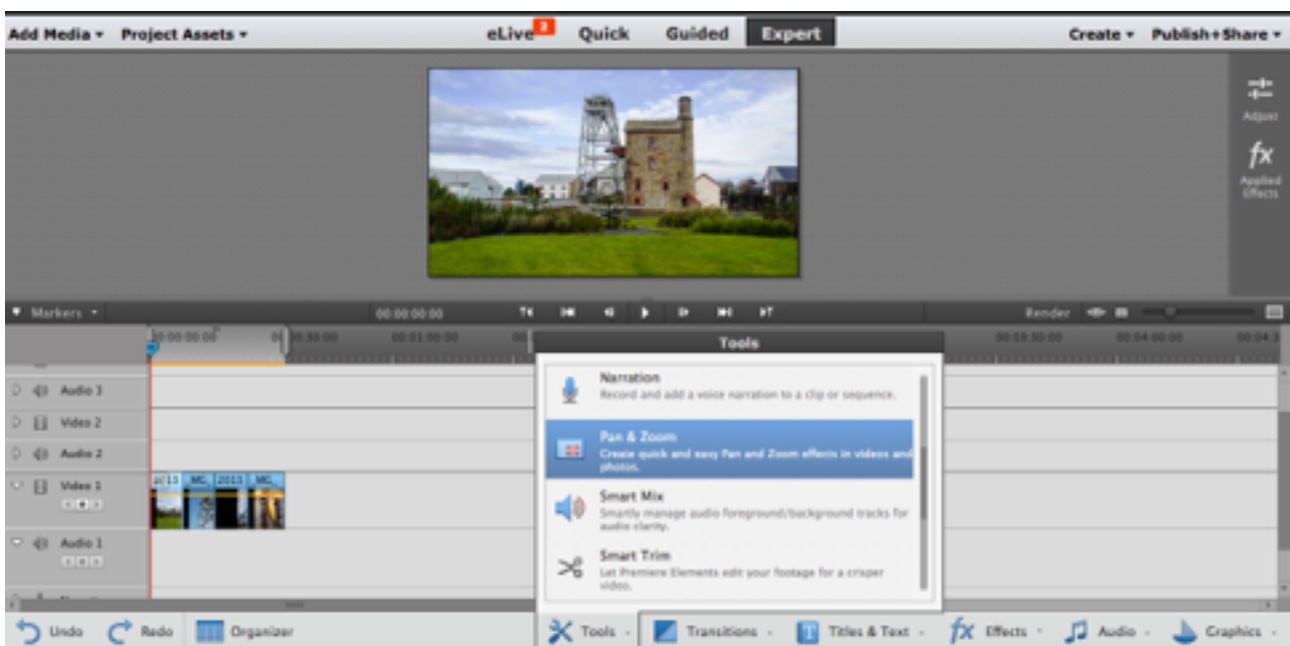
### The Burns Effect

The Burns effect is a way of using and moving a still image as a panning or zooming shot. This effect was already in use, but the technique was particularly associated with the work of an American documentarian, Ken Burns, who used it extensively in his work. His name became associated with the technique because Steve Jobs of Apple wanted to use it as a function in Apple video programs. Permission was granted, and the technique has been known as the Burns Effect ever since. It can be used on video, but it is usually used to give movement to still images within a video or AV.

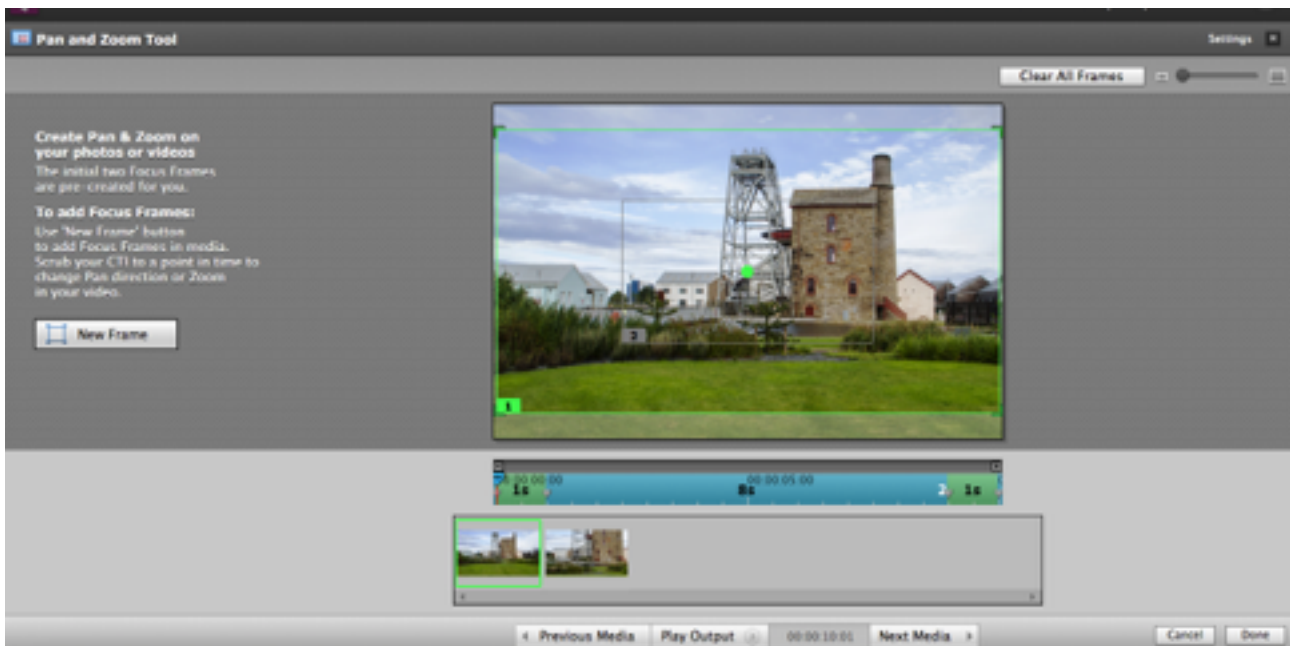
### The Simple way to Move:



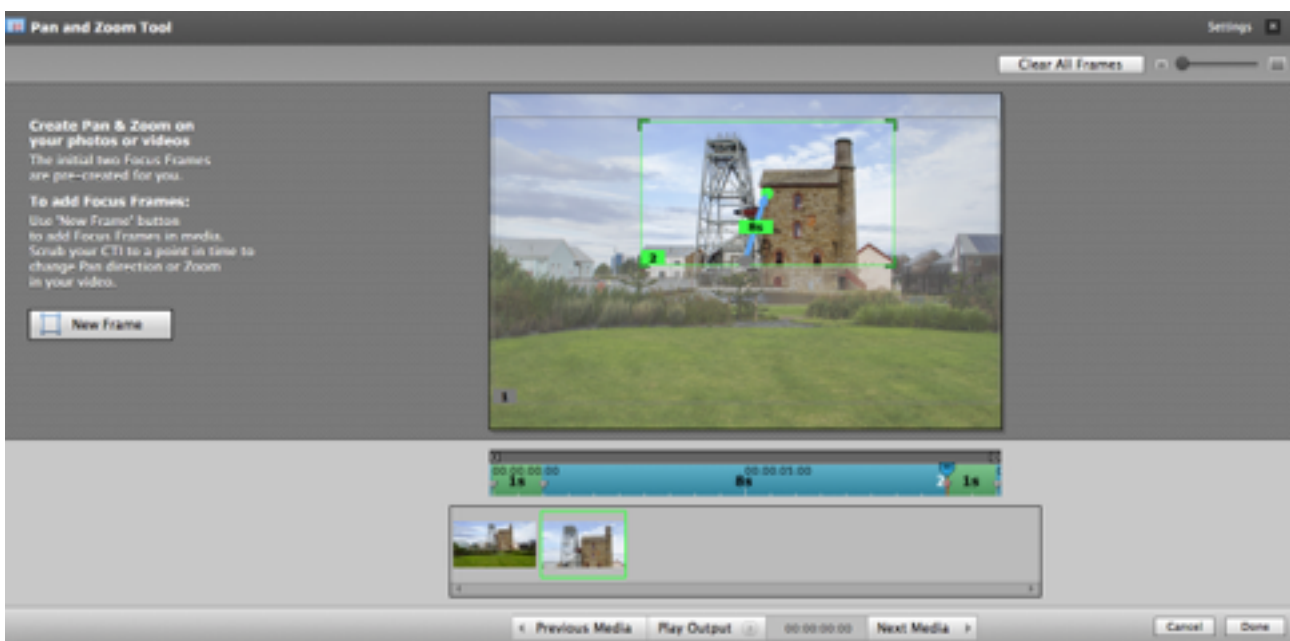
First, open your AV base or project, and import your image files. Choose the item you want to apply the effect to by clicking on the image.



Click on the “Tools” icon at the bottom of the screen - when the list pops up, scroll it down until you find an option to pan and zoom, and choose it.



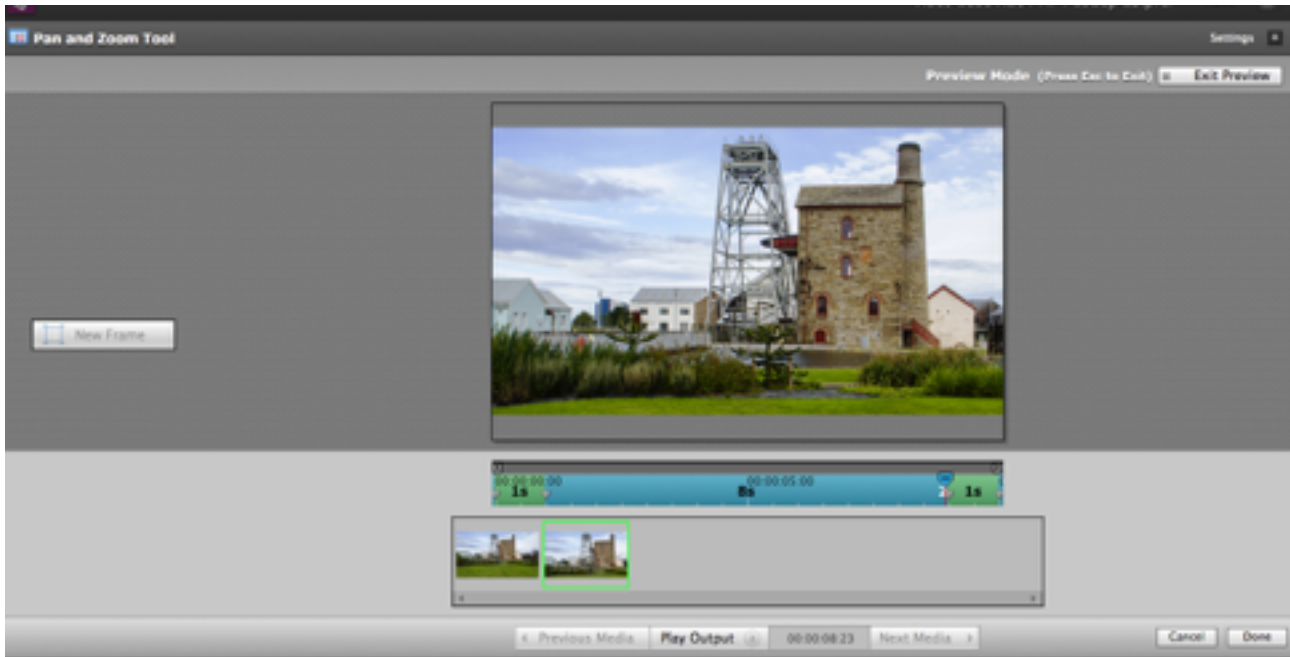
This will give you a screen in which you can apply your chosen movement. There are two focus squares automatically created, ‘1’ surrounds the file as it shows in your video, ‘2’ is the square you will drag and adjust to tell the program where you need your effect to finish.



Clicking and dragging the corners of the square ‘2’ will resize the box - it will retain its proportions, so no nasty surprises there. If you want to see how the effect works, first click on the ‘play output’ button, then grab the small blue ‘handle’ (click and drag) in the box immediately below your image - drag it along the line from left to right to make it play a preview.

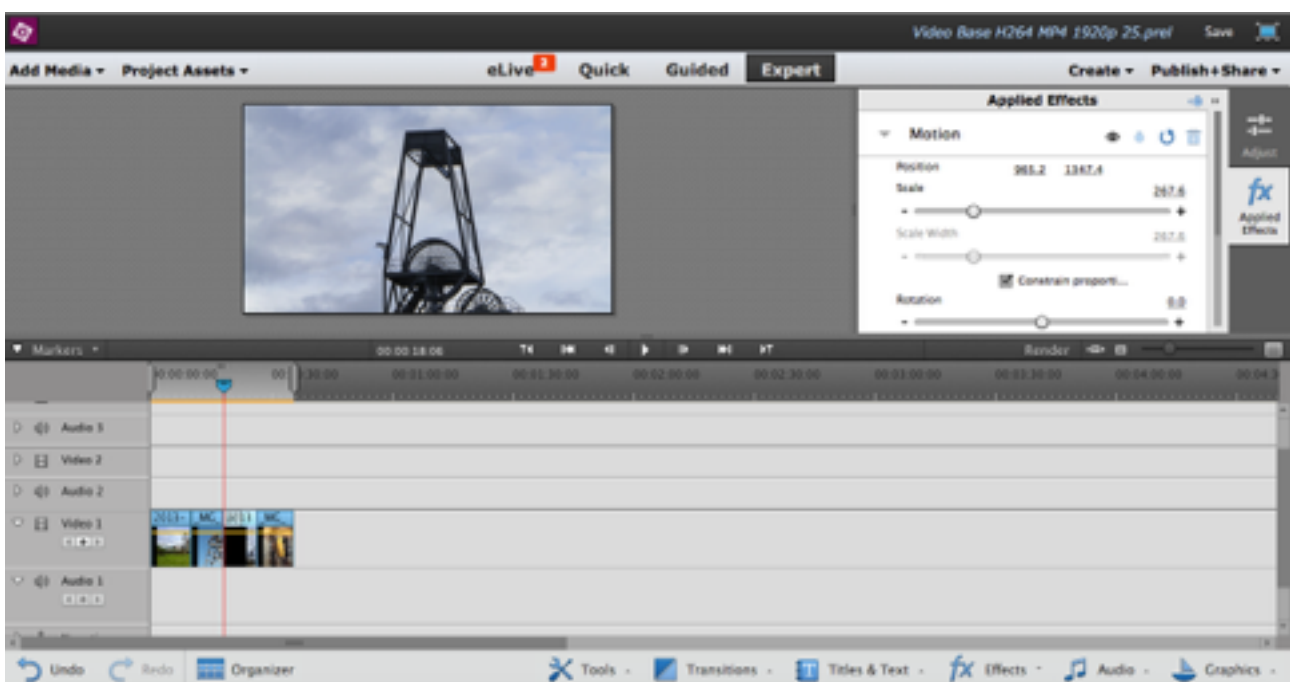
The image below is how the particular image will end when played within your AV. When you are happy with the result, click on ‘done’ and your screen will revert to the normal editing screen.





The above is a rapid, easy way to make your still image move. BUT it is slightly restrictive for anyone who desires to be more ambitious in their effects.

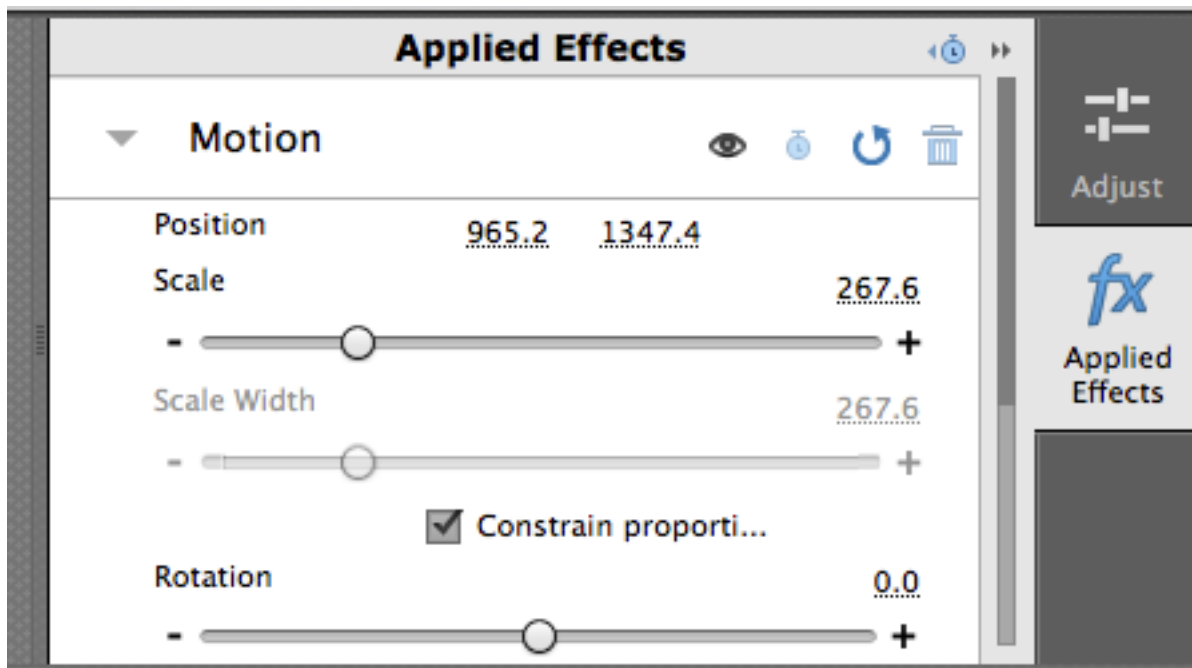
### The clever and flexible way to Move:



This is the way the 'big boys' play! again, click on the image you want to make move, only this time you will be using things called 'key frames'. These can be used in all sorts of ways, not just for making an image move, so it is useful to know about them.

This image was shot in portrait orientation, and adjusted so that the 'short' side was the correct width for the video box. That means, obviously, that it is too long to show the whole photograph - that's deliberate! The intention at shooting was to use it as a vertical pan, and that is where key frames are necessary to make it move in a more specific fashion than the easy-automated method at the beginning of this tutorial.

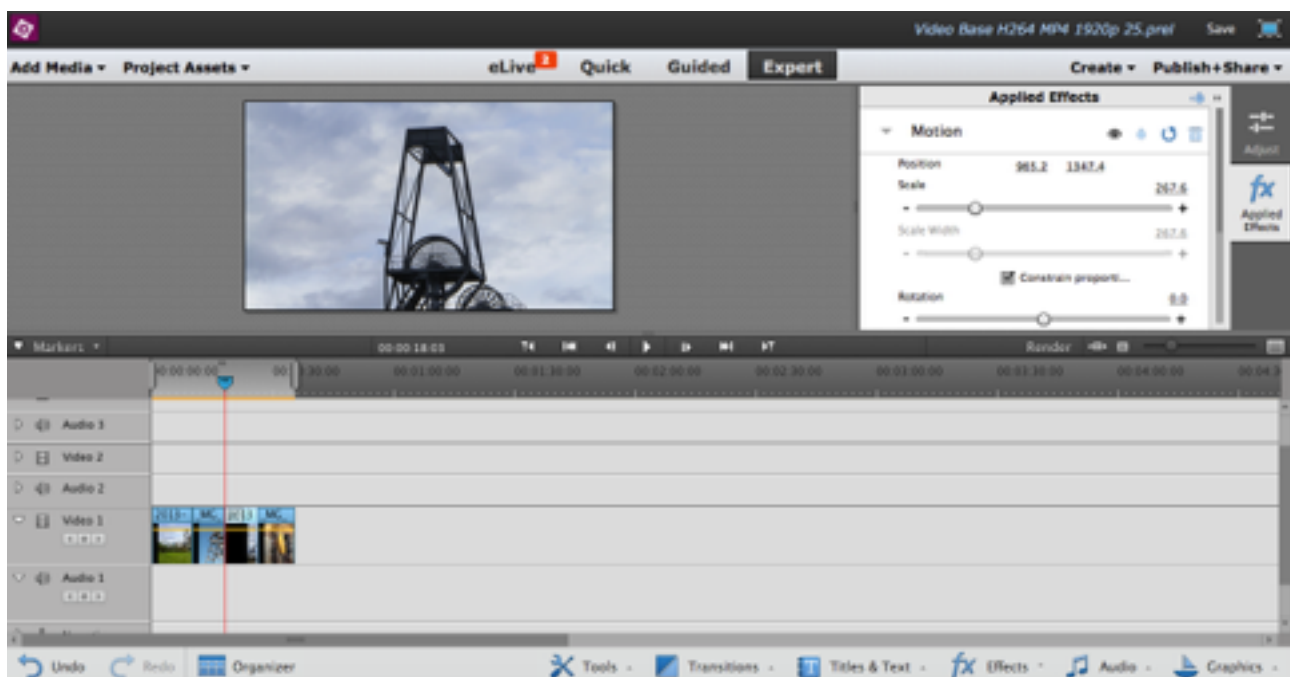




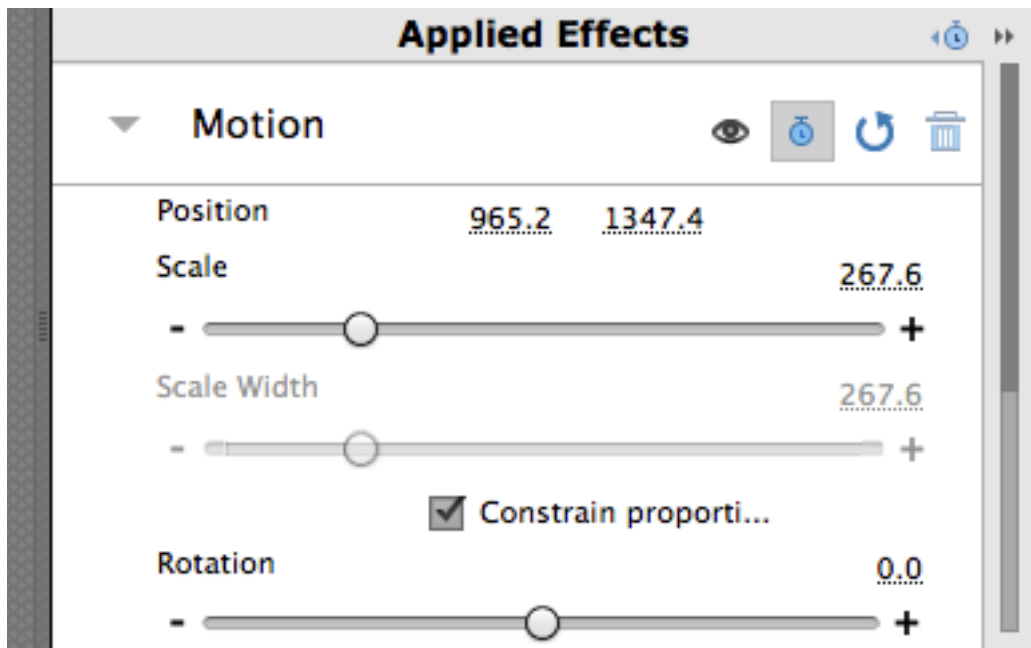
To the right of the image on the editing screen is a button labelled 'applied effects'. Click on it and you will get a pop-out box with options for motion and opacity. This tutorial will show you how to use the Motion option. Click on the small triangle next to the word 'motion' to get this drop down. Ensure the constrain proportions box is ticked if you don't want a lot of hassle later! Also ensure your required image is picked AND that the line of the play handle is exactly on the start edge of the image. (See below). Use the 'step forward' (or back) buttons to nudge the play head exactly.



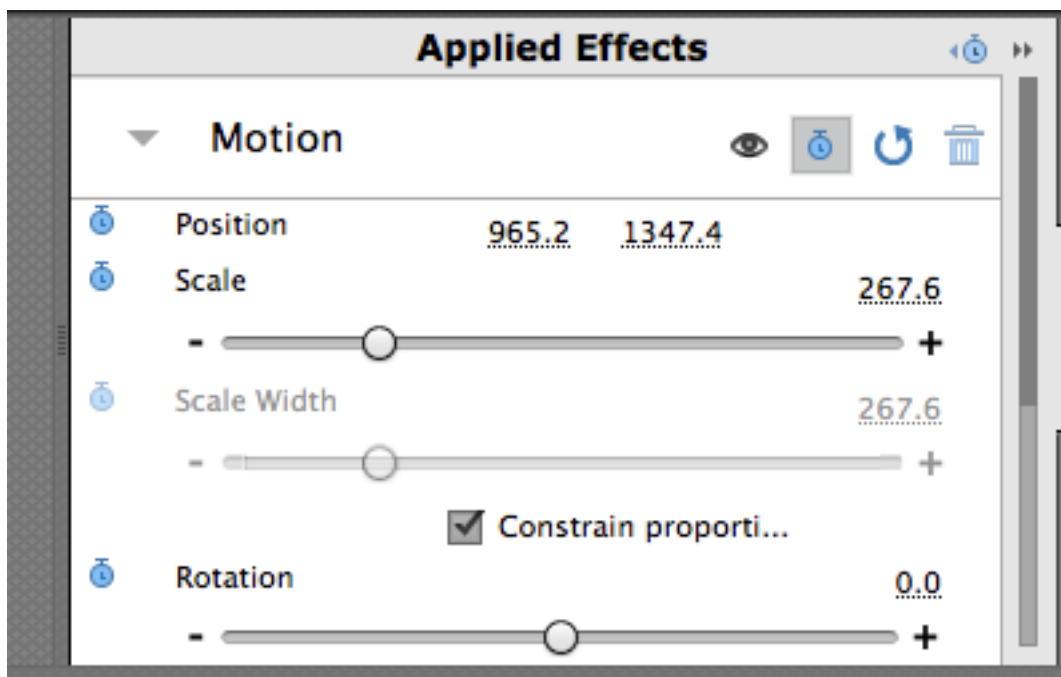
step forward looks like this - step back is the other way around!



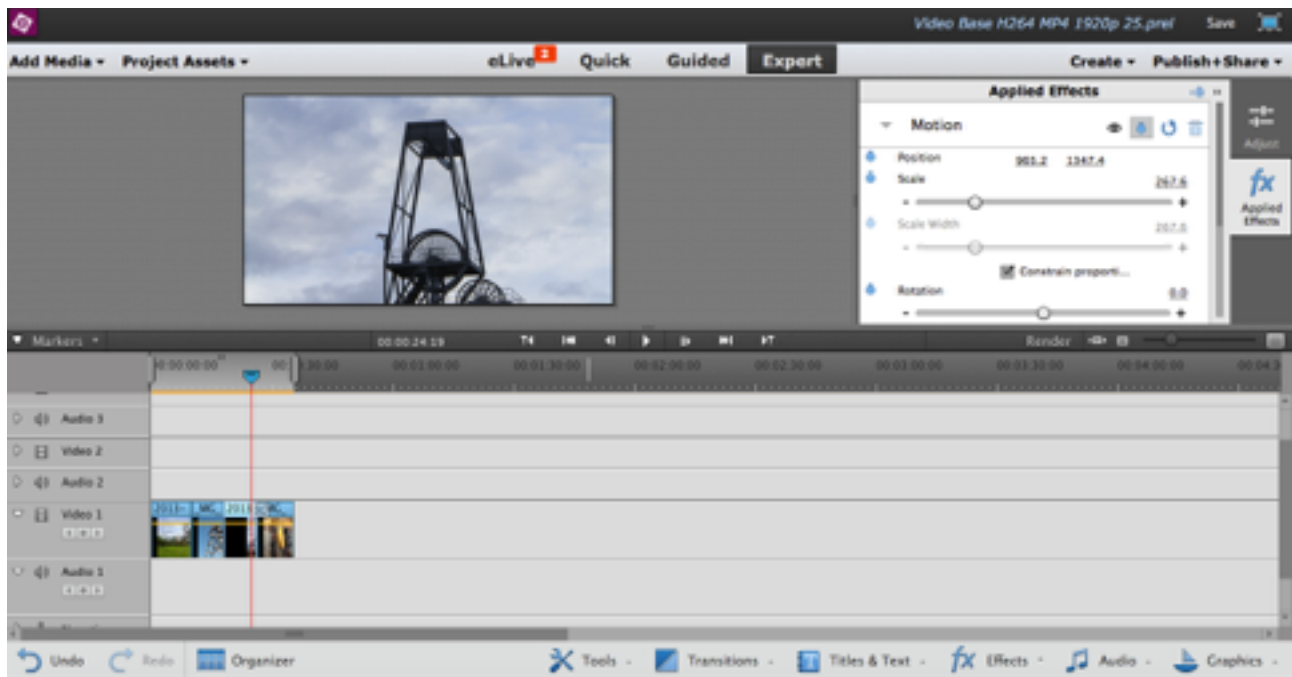
**This is where it gets really fiddly - you have been warned!**



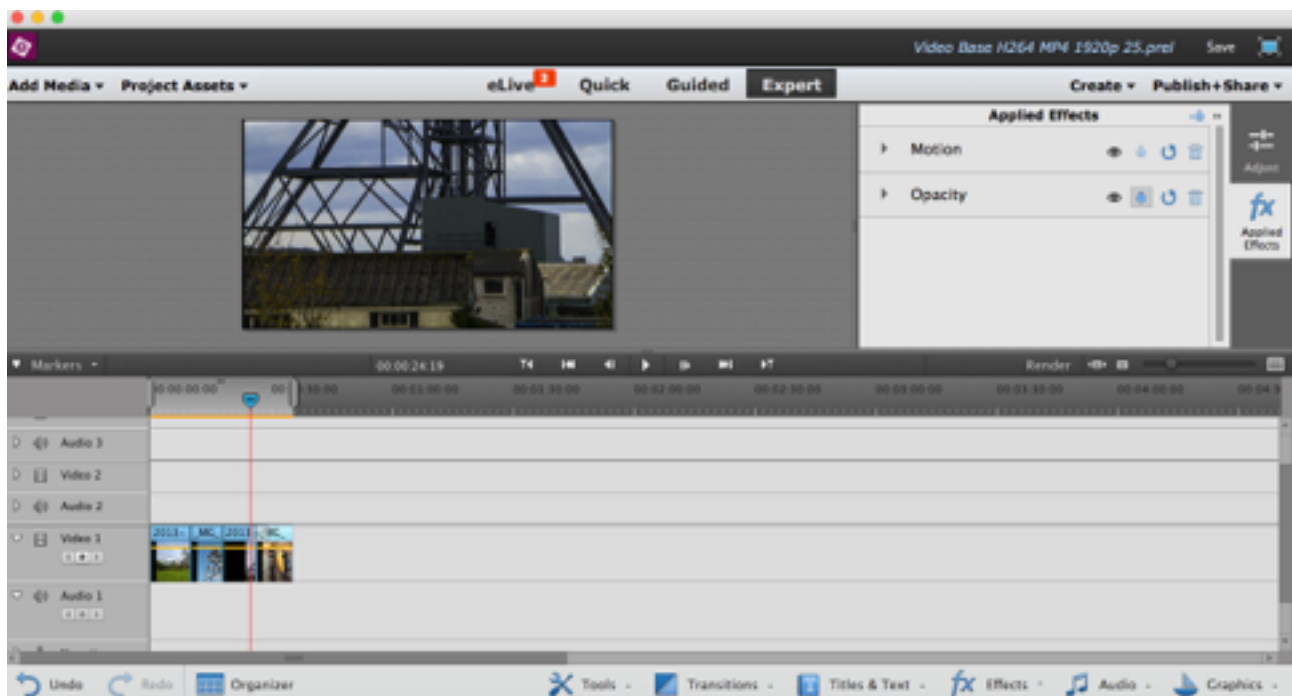
Having ensured the image is where you want it to be at the beginning of the movement, click on the keyframe - looks like a tiny stopwatch, highlighted in the above image.



And, Hey Presto! it is repeated all down the side of the box. But you haven't done anything yet apart from tell the program that you intend to do 'whatever'. It is just sitting waiting for you to show it what you want it to do.



Move the play head to a point (in time) on the frame you want to move, then grab and drag the image and move it to where you want it to end. When you let the image go, another keyframe will



be applied automatically. Use the play head to check you have what you wanted to do.

In this case, a vertical pan from top to bottom of a tall structure.

Not difficult, just fiendishly fiddly, and the order of working is very important: keyframe, move playhead, move image, If you don't use this order, it doesn't work and will drive you around the bend. It can be undone, it can be re-done, it can go in multiple directions. Just play, its the best way to learn, but be prepared for frustration and possibly a lot of bad language.

This method allows you to pan horizontally, vertically and to zoom in and out precisely as you wish. Use the draggable scale bar to zoom, and the above technique to move. That means you can also move corner to corner. The trick is to be very precise in what you do - its a 'Techie-heaven' (aka Geek-heaven).

The observant and/or plain curious will have noticed there is a draggable bar for rotation - yes, you can also rotate your video or still image to level out horizons or create other effects - AND, this technique can make your videos move in mysterious ways, not just still images.

## Working with Still Images in Video Programs

To begin, an insight into the obvious: video programs are designed to work with video. It is a simple statement but a good preface to the pitfalls of using a video to work with still images. A different way of thinking and working is necessary or the project will cause a large number of headaches.

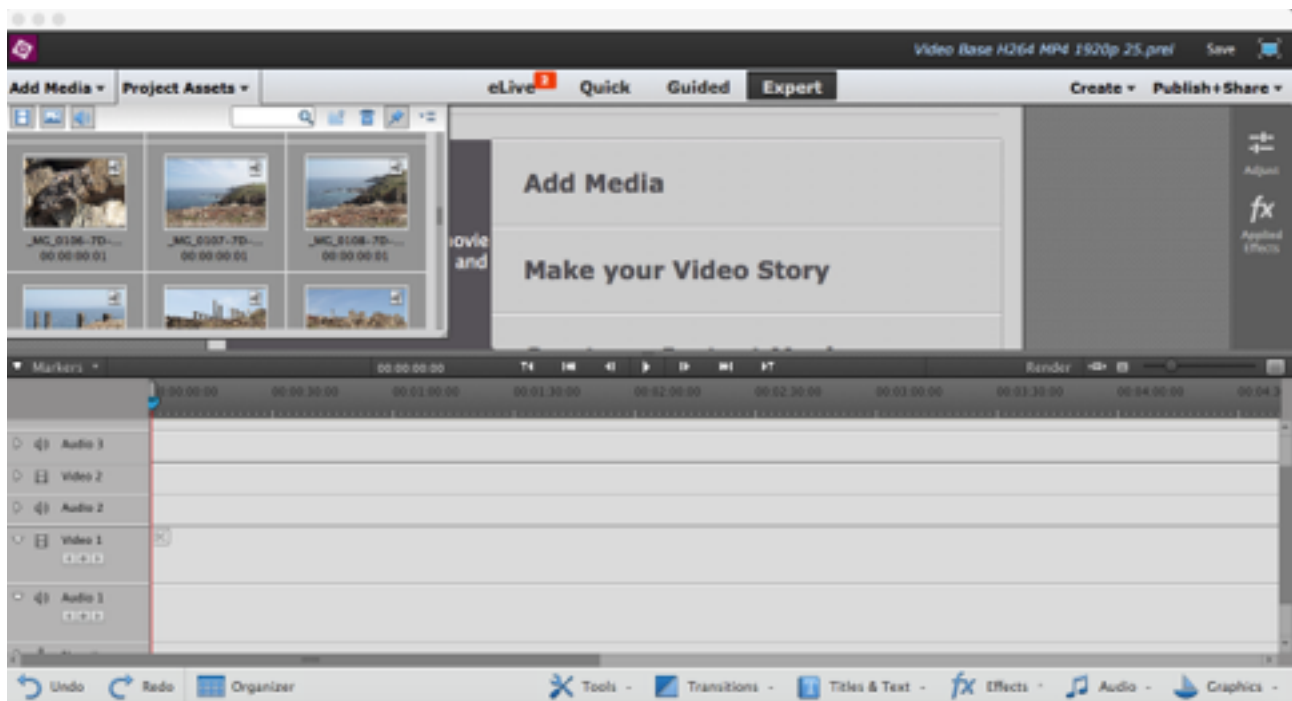
Firstly, it needs to be understood that as far as the video program is concerned, a still image is just one frame of a video. This means that it will automatically 'see' the image at :

1/24 of a second

1/25 of a second

1/30 second

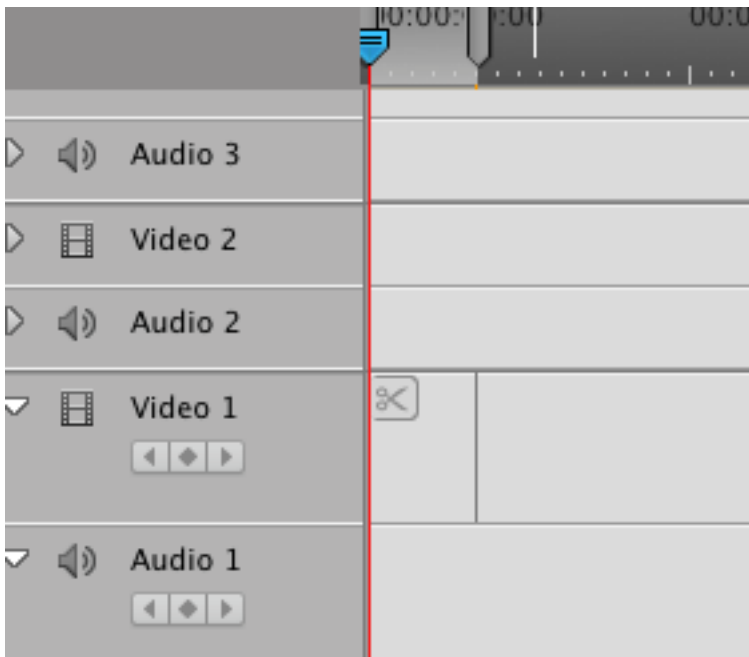
depending on how you have set up your project as 24, 25 or 30 frames per second. Yes, its obvious.... or is it? What is missed is that on the time-line where the images are inserted, that brief a period doesn't show visually.



This is how your base project appears on the screen - with nothing inserted onto the timeline (that's the bit at the bottom of the page with lines for video and sound. If you zoom into this document you can see that the still images at the top left of the page have a figure below the file-name that reads 00.00.00.01. that is the figure the frame runs for, zero hours, zero minutes, zero seconds and just **one** frame. If that image is dragged into the time line, it will need adjusting to become visible. It will need this adjustment anyway to become part of the AV, since most images will show for several seconds - variable according to personal choice and desired effect.

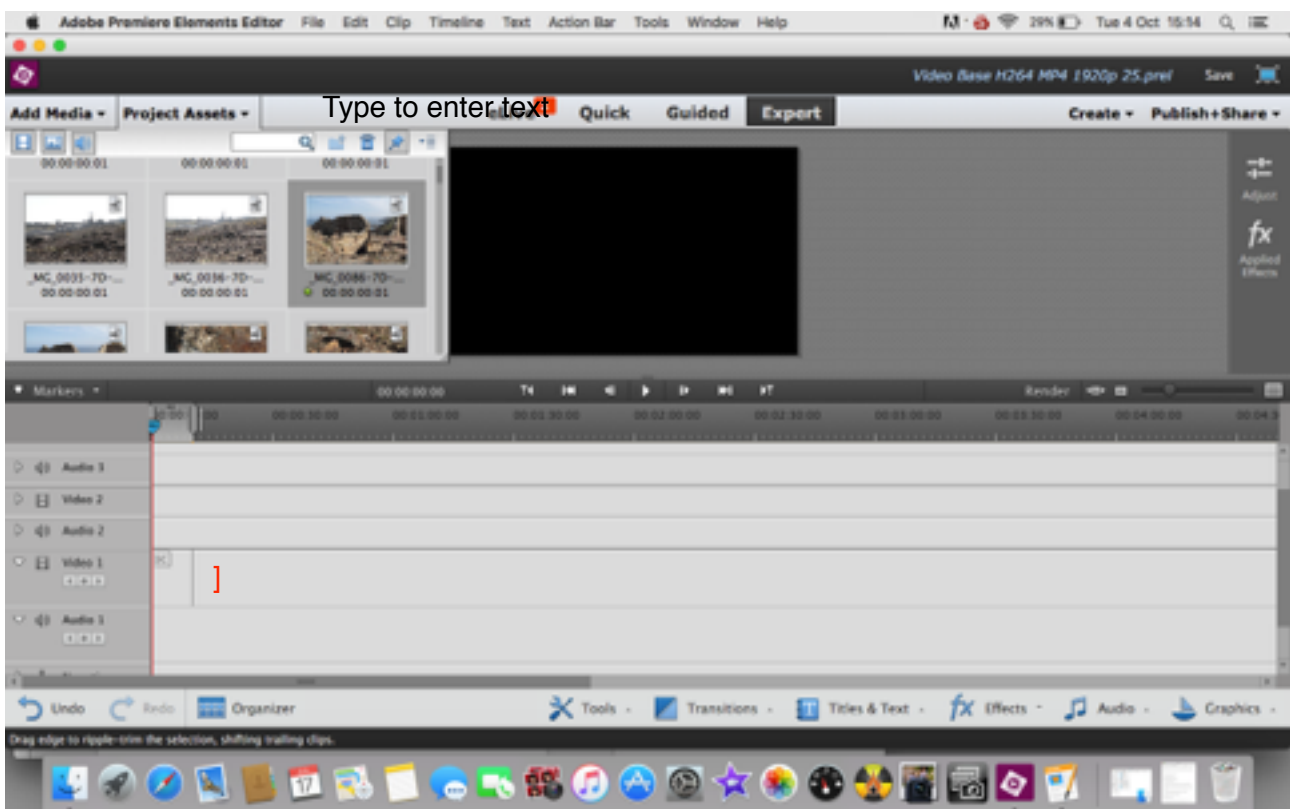
If the image is not adjusted immediately after placing it on the timeline, it will cause trouble, because the program will show it as a 'blip' embarrassingly where you don't want it when you lost it! It can be a right royal pain to deal with.

So, how to work around the problem?



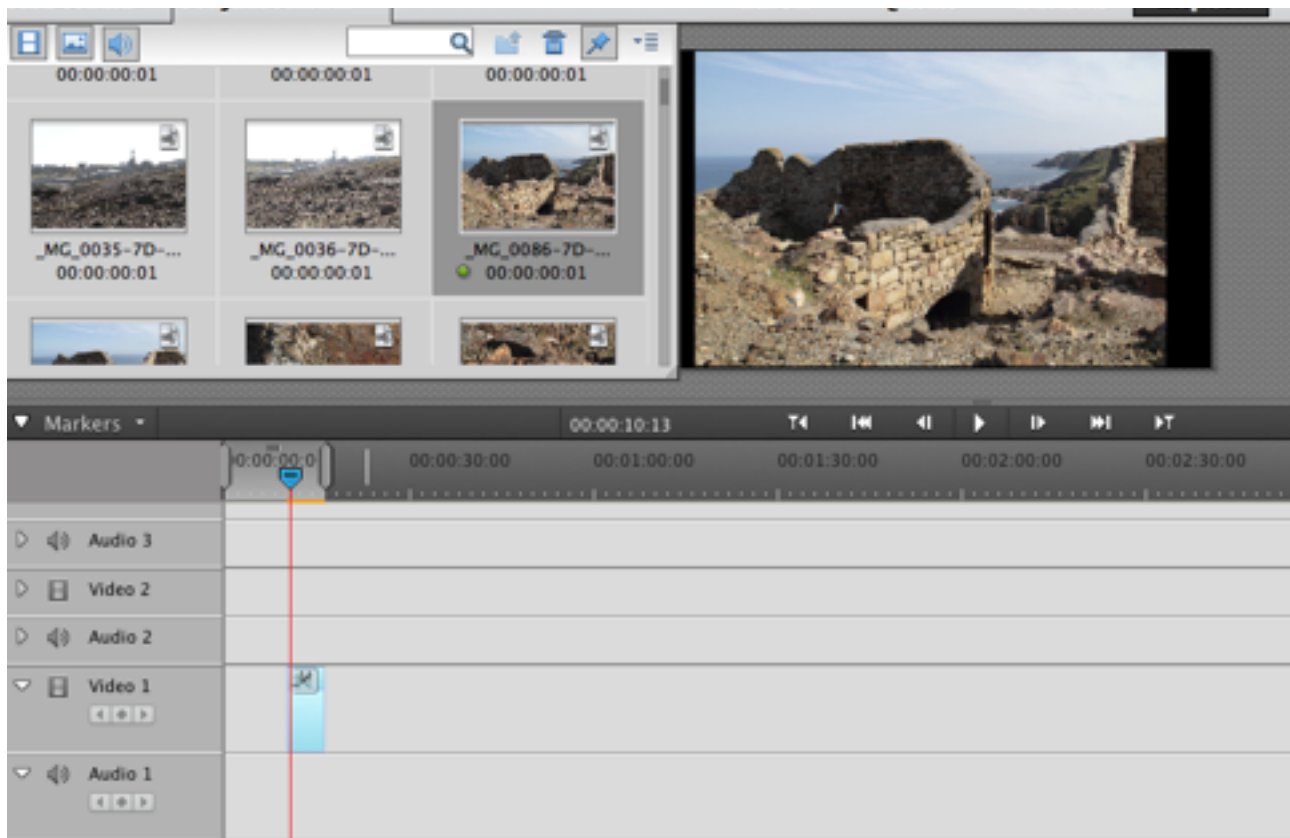
The above image shows the fine line that is all that can be seen of a still image dragged into the timeline.

Hover the cursor over that line and slightly to one side of it, a red square bracket with black bidirectional arrows will appear to the side of the line. This allows a click and drag to retime the image - actual desired time can be adjusted later.



The above is an approximation of what you will get - the screen grabber doesn't see the red bracket.





Once you have clicked and dragged the red bracket, the image you are working with becomes visible on the timeline, and if you move the play head to the edge of the image it will show on the editing screen too!

If you wish to move the image that you can now see in the timeline, simply click and drag it to where you will want it to be in your project. Ensure you click into the lower part of the image on the timeline to do this - looks like a miniature picture below the blue header area.

Video items are easier - they have a duration of their own, so when brought into the timeline, can be seen.

If multiple images are brought into the timeline, it is possible to select them all and retime them - but they are likely to overlap each other and can be fiddly to sort out, sometime plain defiant of your efforts to do so. It is better to work with individual images until you get to grips with the program.

Unless.....you are working with time-lapse! for that, Premiere is very clever indeed, and does a great deal automatically for you - but that is the subject of a separate tutorial.

## Timelapse Video

### What is timelapse?

In brief, a series of still images taken at intervals chosen by the photographer and put together to create what appears to be a video. However, that definition actually applies to movie-footage. The difference is in the intervals between image 'frames'.

Video footage is shot at a capture rate of 24/25/30 frames per second, which gives a smooth flow of apparent motion. In the early days of film, the frame rate was about 16 per second - which gave the strange hyperactive movies such as Keystone Cops, Charlie Chaplin or Laurel and Hardy.

Timelapse uses this effect by increasing the interval between the images captured which when put together as a movie produces a faster version of the chosen activity. Favourite subjects are clouds and street scenes, which most people have seen as time-lapse video.

To work properly, the interval between shots needs to be chosen carefully - too short and the effect isn't noticeable, too long and the movement can be more jerky than intended. It is also important to take enough images to create a movie - time-lapse is 'image-hungry', needing around 300-400 individual shots for approximately 15 seconds of video footage.

This is one area where capture in JPEG format is extremely useful - unless you run a program which allows a batch edit of RAW files, such as Lightroom or Canon DPP.

Working out how long the interval should be and how many images to take is fairly simple. The interval is a matter of counting in seconds - practice with a wrist watch counting one-and-two-and-three-and..... (its quite slow) until you have the timing in your mind. When you see a scene you wish to timelapse, find a fixed point, count in seconds watching the activity passing that point. For example, a cloud passing over a tree - to travel across the tree and depending on the wind speed it may take 1, 3 or maybe 20 seconds or more. That period will be your interval.

Now for the number of frames you require. This depends on the combination of the frame rate you are using, and how long you want the finished timelapse to run. There is some leeway in run time in the editing program, so it doesn't need to be exact. Most video clips run at about 10-20 seconds (yes, really), so multiply your run time by the frame rate to get the total number of images required

e.g. 25 frames per second x 15 seconds run time = 375 photographs.

A lot! And be very aware that timelapse capture kills camera shutters, particularly on older cameras, which use mechanical shutters. Newer cameras often have a choice of using an electronic shutter, which cuts down the wear-and-tear of time-lapse sequence shooting. The other thing to be aware of is that timelapse takes a good while to capture - there's a lot of standing around to do, waiting for the camera to do its stuff - and that is down to the interval between the shots. For instance, a 10-second run time at 25 frames per second means 250 photographs, but if they are taken at 10 second intervals, you will stand around for 40 minutes, just.....waiting..... Night timelapse videos take even longer - all night in fact. You cannot have a shutter speed longer than the interval either - which needs to be factored in to the calculations.

### The intervalometer

The intervalometer is a necessary item for making time-lapse video. It is a shutter release designed to automatically release the shutter according to the interval set, and the number of images it is set to capture, permitting the photographer to enjoy a cuppa whilst waiting. Intervalometers can be very expensive to buy, particularly if they are made by the company which makes your camera - and not all of them do make this gadget for their cameras.

However, the good news is that a company called Ex-Pro make them for the vast majority of camera makes, and they don't cost a small fortune, averaging around £15-18. If you need one they are available on Amazon, and you need to search on 'Ex-pro timer remote shutter release' - add the make of your camera to shorten the list you will be shown. They are simple to operate,

and very effective. They can also be used as a remote shutter release for single shots - and they generally allow the autofocus system of the camera to work.

Older cameras will need an intervalometer - they are a recent addition to the in-camera range of gadgets. Cameras under 2 years old mostly have a built-in intervalometer or some way of capturing timelapse amongst their features. If you have such on your camera you will still need to do the calculations mentioned above, but you will have a specific set of possible options according to how your camera is set up. In other words, if you are happy with what you are being offered, excellent, but if you want total control, buy your own intervalometer! The time-lapse function on most newer cameras is useful and generally does the job extremely well.

For those who have an AppleMac gadget - iPad, iPhone or iPod - there is an app.....and its FREE. It is called Hyperlapse, and can be found on the app store site. The app uses the camera in the device, and stitches the images together to produce a ready-made timelapse movie. On the larger devices it allows more functionality than on the smaller devices, but it works remarkably well.

Similarly, if you have a camera which captures timelapse automatically, it will probably stitch the images together in camera as a movie, which does save a great deal of work on your computer. However, if your camera doesn't, or you want to completely control the output then read on.

### The next steps

First capture your images! When you have downloaded them to your computer, create a separate file and COPY THEM to it. The next advice is a serious health warning: **don't**, for the sake of your sanity, work on the original and only version of your images - use copies in a separate file. Because: one slip means you start all over again at the capture stage.

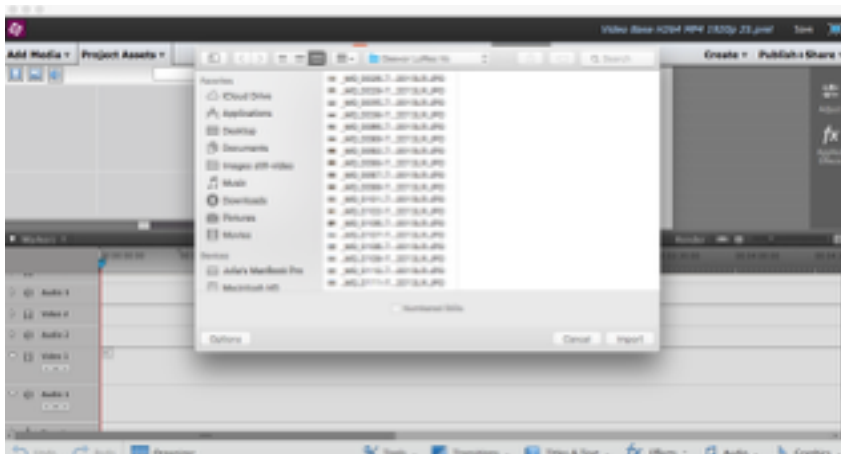
If you are using raw capture, then process your images before you save copies - and this is one area in particular where the 'health warning' applies - do you really want to re-process 300 images?

Then, renumber the image copies 001 - 350 (or how-ever many there are). This ensures the video program will read them in the correct order - sometimes necessary because there is a (thankfully) automated process involved. However, if your camera is set to number the files sequentially (most are) then you don't necessarily need to renumber. Just be aware that it is a 'maybe' factor that can throw a spanner into the works if your program doesn't recognise the numbering system.

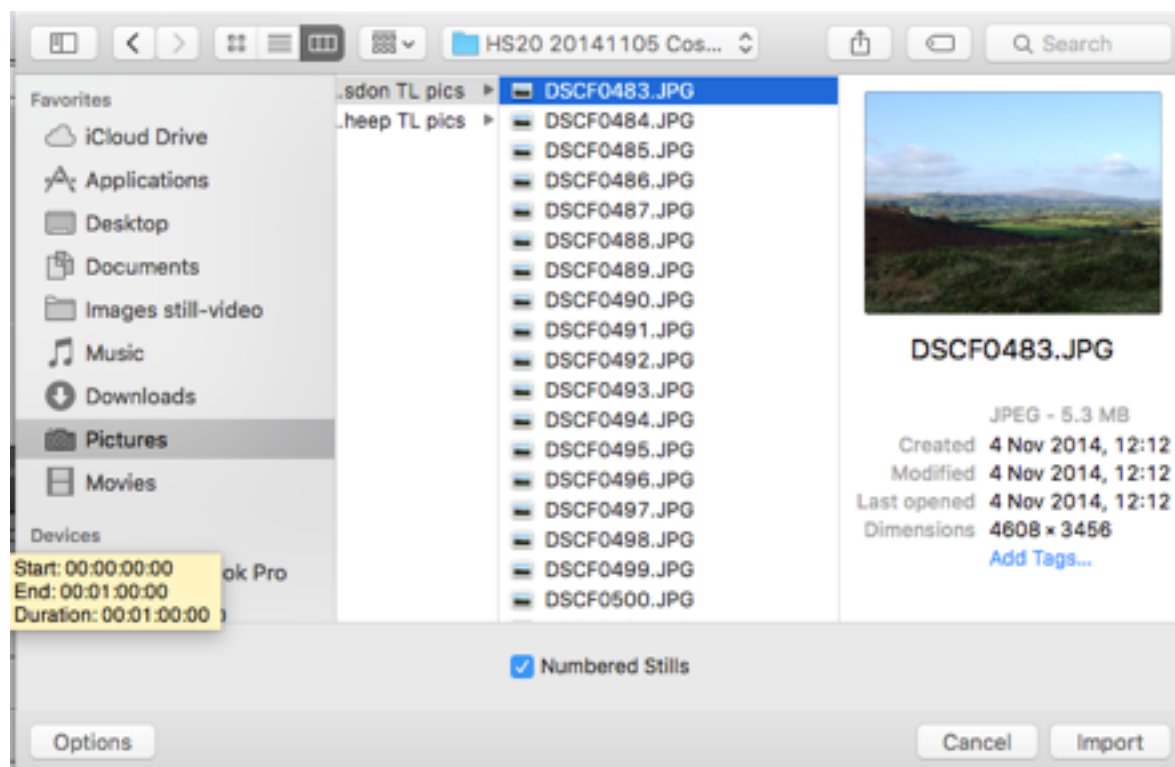
Once you are happy that the images are as you want them, open your video program - and here this tutorial will move to using Premiere Elements 13.

### Putting timelapse images together as video

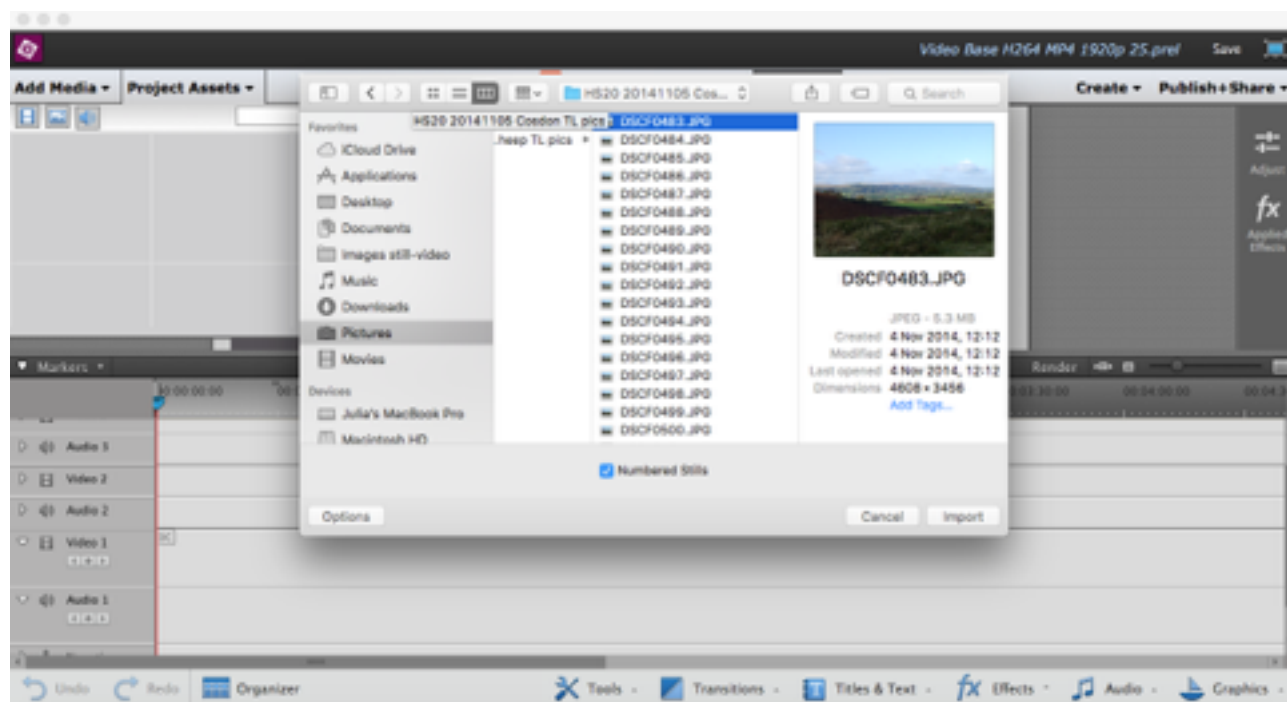
Start just as you would for any other AV offering, with opening your 'base' project. Save it with a new title - some indication of it being timelapse can be useful in the title. Add media (file - add media from-folders and files). Navigate to your folder containing your numbered image copies

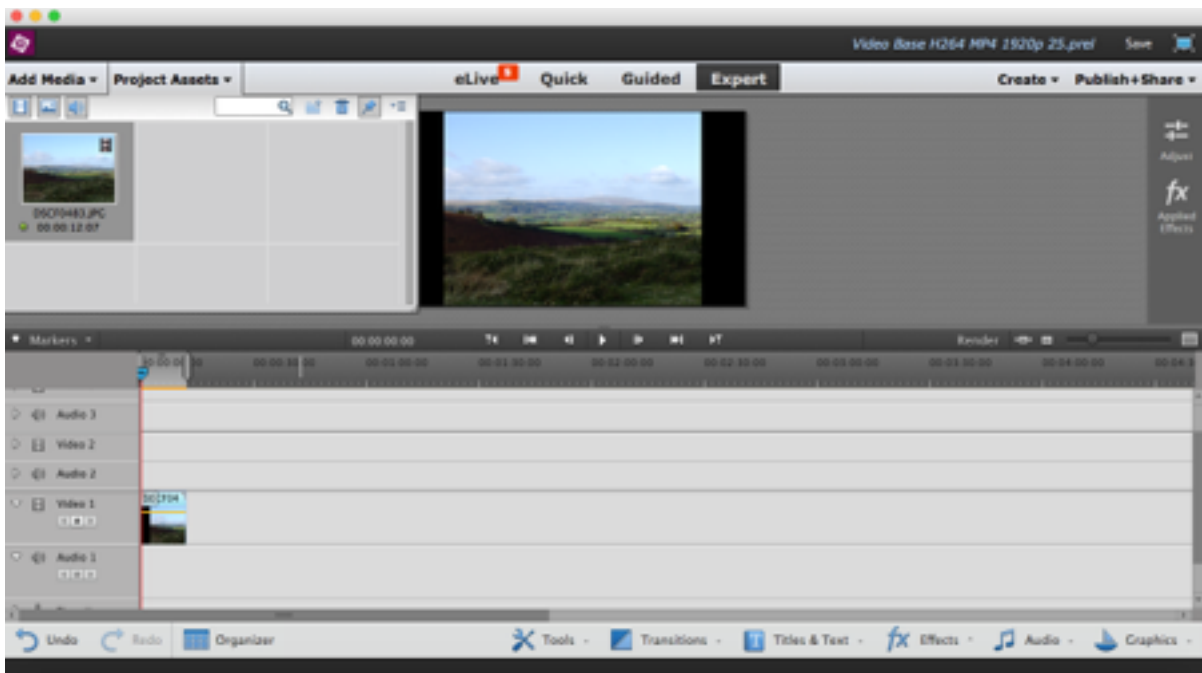


If your camera automatically numbers the files, they will work, you may not need to renumber them - this camera and Premier Elements work together, and the file numbering is recognised by the program. Click on the first image in the folder, and then go to the small 'tick-box' below the list of images and ensure the 'numbered files' box is ticked (see screengrab below).



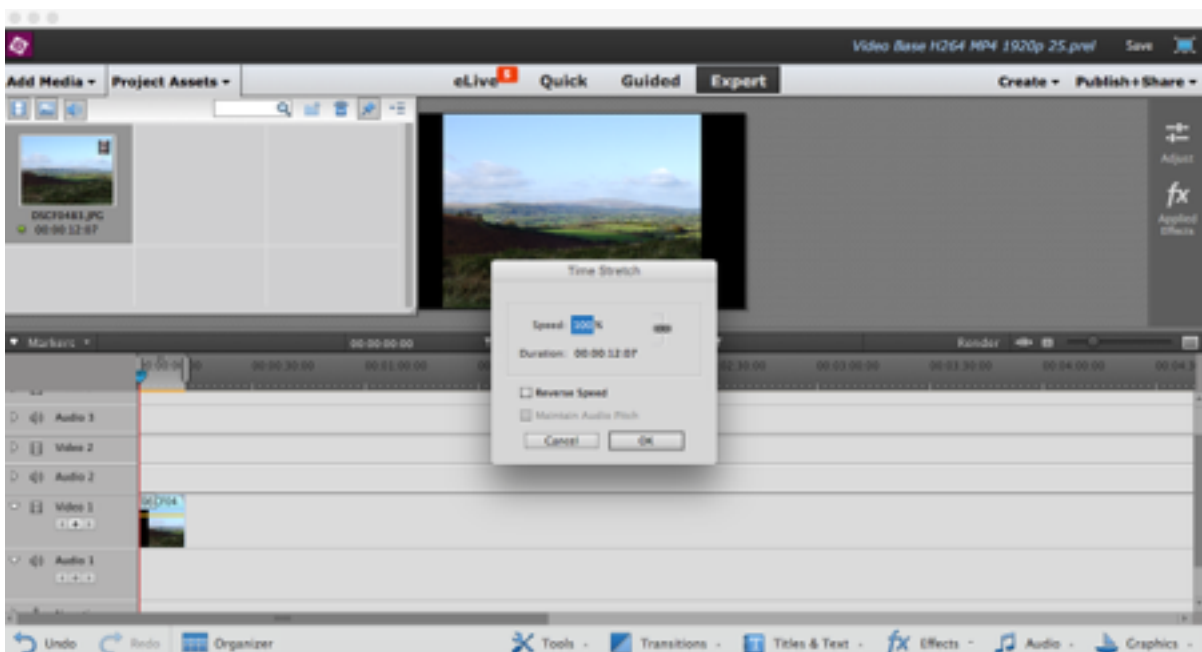
Then click on 'Import'. And wait a short time while the program does something quite clever, and (oh bliss!) automated. It brings in all the images in the folder and turns them into a timelapse clip ready to use.





Your clip will look like a single image in the 'add media' box on screen - just drag and drop it to the timeline.

On the timeline is the clip completed automatically - it will play as video not a series of single still images as you would have as a slide show.



Click on 'Clip-Time Stretch' to check on the duration of the clip, and adjust it as you desire it to run, longer or shorter. Don't be too ambitious - it can noticeably slow down or speed up the whole action....unless of course you want it to do that. When you are happy with your clip, then save it as an MPEG (as described in previous tutorials) to be used in your projects.

It is possible to add other effects before saving but it is better to apply effects to copies of the saved file - its more flexible and if you don't like the result you have the original to play with in a different way.

Happy timelapsing!



## The Intervalometer

This handy gadget is also sometimes known as a 'Timer Control' - but more often referred to as 'the interval-er-thingy' - occasionally with an expletive. Using it is surrounded by a huge amount of techie hype, most of which is designed to convince the wanna-be user that it is a very complicated piece of equipment to operate. To quote a pantomime line: "Oh, no, it isn't!"

Intervalometers all follow a similar design, and have rules for use which are quite simple. They work on a very much a "do this, then do that" system, which when understood is quite easy.

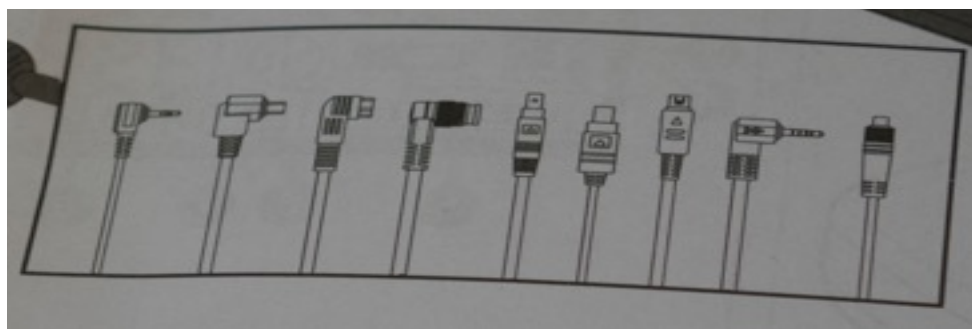


Two intervalometers, one costs £120, the other costs £16. Spot the differences (hint: they are visual).

Answers: the Canon one is the high priced version, the other is a cheapie generic. The only justification for the price is that the owner could expect the branded version to take much heavier use before it wears out or dies completely. They work in almost exactly the same way - the difference being that the Canon version has a small dial on the side of the control, where the generic version has a dial in the middle. That difference is more down to the generic version being a lot younger than the Canon version!

### Basic Rules.

1 The intervalometer must match your camera system. This is simply a matter of the plug on the other end of the wire, but there are quite a few versions according to the camera manufacturer's design.



One of these plugs fits your camera - the intervalometer at the other end is the same gadget for all of them. Manufacturers don't make an interchangeable plug set, unfortunately, so if you run more than one make of camera you end up with a bag full of identical controls all with different plug ends.

2 You need to tell the thing what to do **in detail**. That means you set:

- a The duration of the exposure
- b The duration of the interval
- c The number of exposures you want.

Duration of exposure: this can be set on the camera using the normal shutter-speed settings - in which case the intervalometer needs to be 'told' that it uses the camera setting rather than its own, OR, the camera can be put into the 'manual settings' and the exposure is overridden by one from the intervalometer. This is where you need to read the instruction book carefully - there are small

variations in how to achieve the desired result. However, when you desire a shutter speed -usually longer - than the camera allows, the intervalometer can do the job.

Duration of the interval: this is the 'gap' between exposures. It **MUST** be longer than the exposure, and in the case of long exposure photographs, then the rule is 'add a bit more' for processing time. So, if your exposure is in daylight and you have a setting of 1/60 of a second, with an interval of 2 seconds then that is all you need to set. But, if you are taking low light photos, using exposures of 20 seconds, with an interval of 30 seconds, be aware that writing the image to your card may take up most of that 10 second gap between the image capture and the start of the next image capture. A great deal depends on the write-speed of your card - faster cards take less time to write the information, but slow cards.....write slowly..... (Yes its that obvious).

Number of exposures: the intervalometer needs to know how many photographs to take, or it will assume you only want one photograph - the default setting. If you do timelapse, you are likely to want upwards of 250 exposures (to make approximately 10 seconds of video). Intervalometers usually allow 1-399 photographs (or similar) and have a further setting for 'unlimited'. This last setting means that the capture will continue until something gives up, be it battery, camera, card or you. Unless you really want to stand around forever, use a specific number in the setting - but be generous in your estimate. BUT if you are following an action - such as sunset or moonrise, use the unlimited setting so you don't miss what you are wanting to capture.

3 If you are wise you will have a piece of string, elastic or velcro to tie your intervalometer to the tripod legs. Any breeze will cause it to swing around, perhaps breaking it on any handy hard surface, certainly causing movement in the camera - and even damaging the end that is plugged into the camera. A case of 'two ha'porth of forethought saves a deal of money'.

And those are the rules of engagement!

### Generic step-by-step

Fit the batteries into the intervalometer - don't keep them in it, they don't usually have an off-switch, meaning that it is always on unless batteries are removed between sessions.



Plug the intervalometer into the camera.



Check your handbook - but most of them have these controls or something very similar.

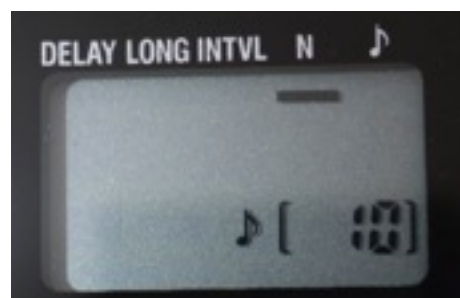
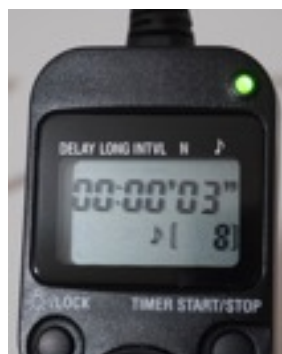
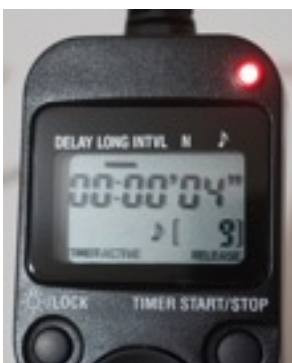
Check your handbook - but most of them have these



Set the duration of exposure ('long') and the interval ('intvl')



To go to the separate areas (indicated by the black line under the area name) press the left or right arrow on the large button. Then press 'set', and use the arrows (left-right) to move to the hours/minutes/seconds spaces, then uses up/down arrows to alter the selected item. (Do the same to set the number of exposures.) Press 'set' again when done, move to the next area to be set.



When you want to start the device working, press the 'timer start/stop' button. This intervalometer (like most of them) will give a visual and audible confirmation that it is working. The audible bleep is faint but annoying but can be switched off. Usually - as here - the red light is the countdown of the interval, and flashes, whilst the green light indicates that the shutter is open.

There are a couple of extra items on the device which are useful, but not strictly necessary for timelapse capture.

Delay: This controls when the shutter will operate - so if you desire to be in your own photograph, you can set it to make an exposure after a stated time has elapsed, giving you time to nip into the frame and assume your desired demeanour. Yes folks, you can do a selfie! However the intention is that you can go do something else in the full, safe knowledge that you don't have to be there to get the camera working in the next few hours - or days - if you know an action will take place when you can't be there but your trusty camera can.

The other very useful button on the control is

THIS ONE!



This is the one which allows a camera with no 'bulb' setting to have one! It can be used by pressing the round button and holding it down as long as desired, or by sliding the long part surrounding it to lock the pressed button, again for as long as desired.

So there you have your intervalometer/thingy. It really is not as complicated in use as it appears, and gives you total control over your camera - which when your camera isn't built to do certain tasks is a very handy place to go. Think of it as being a 'souped-up shutter'.

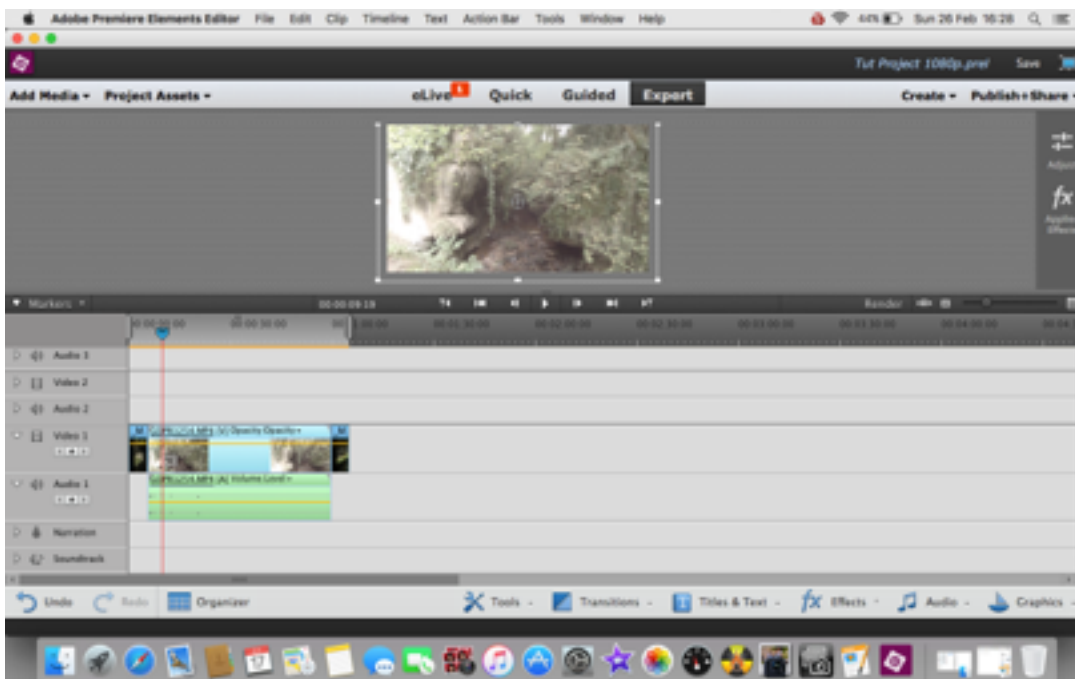
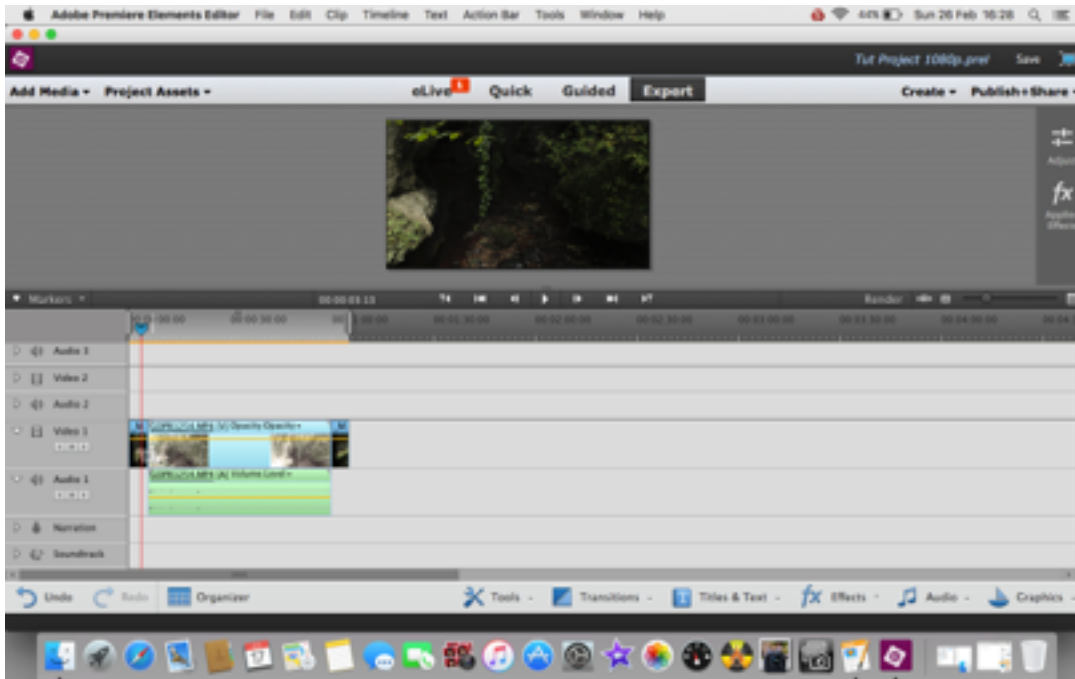
On all the above, please read your instruction manual for complete accuracy of control. This is only a broad, generic, de-mystifying text, and there will be differences between the various version of intervalometers, but hopefully only in small details.

If you have a really modern camera - probably produced since 2015 - it is likely that it has a built-in intervalometer in the form of a timelapse function. It works in the same way, but in this case you really need to use the instruction manual for your particular camera - manufacturers seem to delight in finding as many ways as possible to perform a task, varying the operations between camera models even in the same make!

## Premiere Elements 13 - Using Tools and Effects 1

Premiere Elements has a variety of gadgets on board which allow you to work on your files in a similar way to using Photoshop. You can choose to process your jpegs in Premiere if you wish, use Photoshop then bring in the finished article to your Premiere project. However, you can process your video footage in Premiere Elements using tools which are familiar to anyone using Photoshop. What is not familiar is where to find them and how to get them to work!

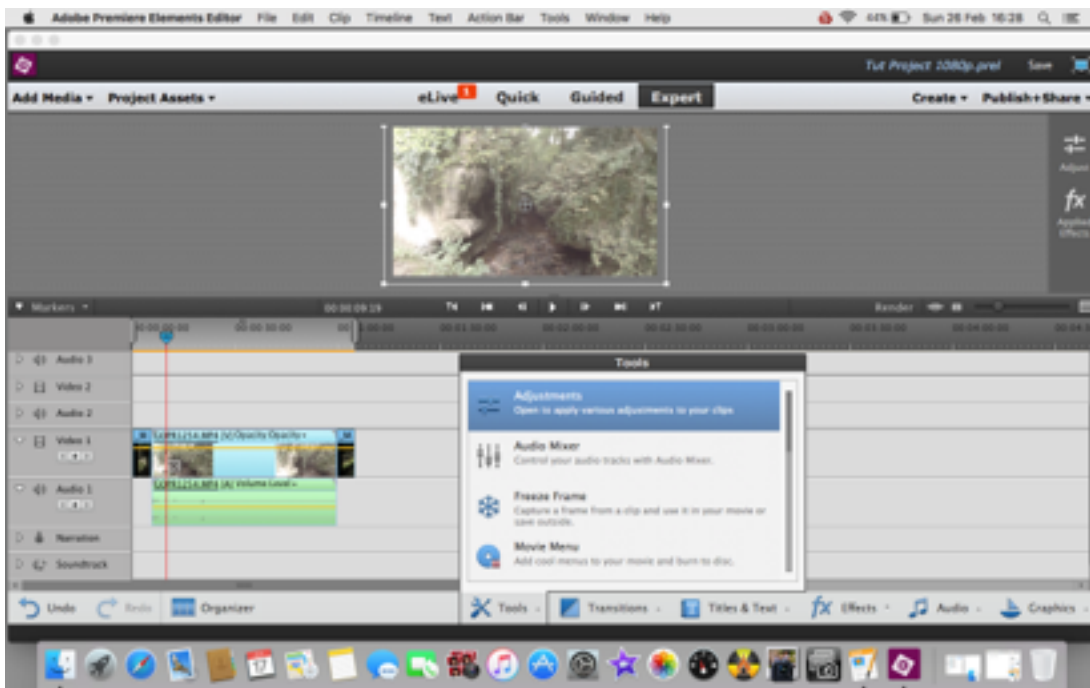
First open your project, and bring in your images and/or footage as you normally do.



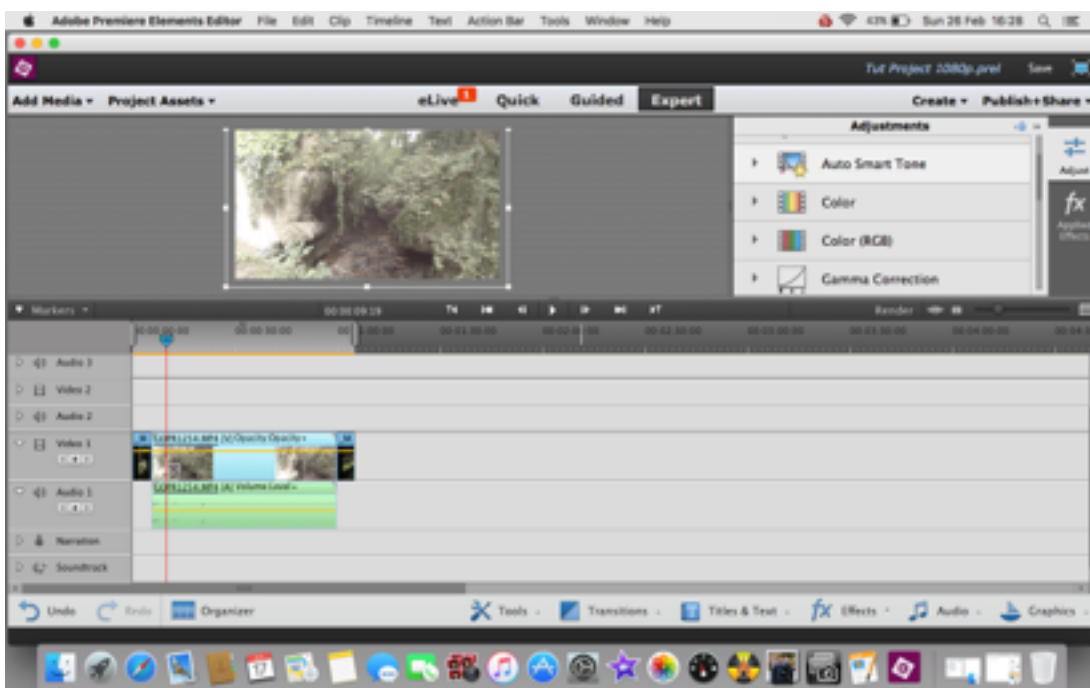
See the difference between a still image processed in Photoshop and the video clip which has had no processing applied. They are of the same scene, taken within a 5 minute period. The video has been shot in the equivalent of RAW, so requires processing.



Select the video clip, and then click on the 'tools' menu at the bottom of the page, which will produce a pop-up of several choices of tool.

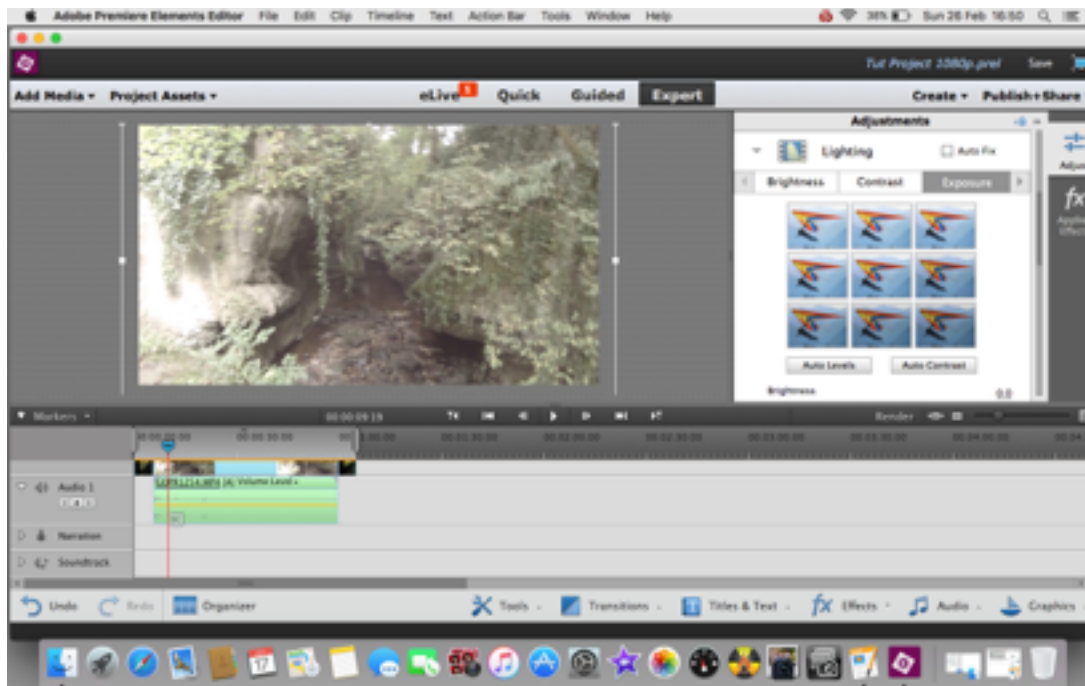


On this occasion, because you are processing your video to look as good as possible, click on the first option on the list, which is Adjustments.

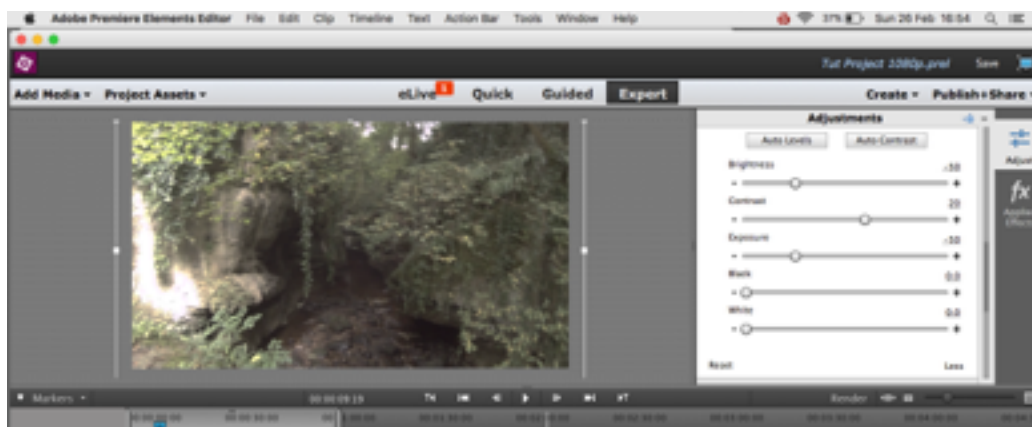
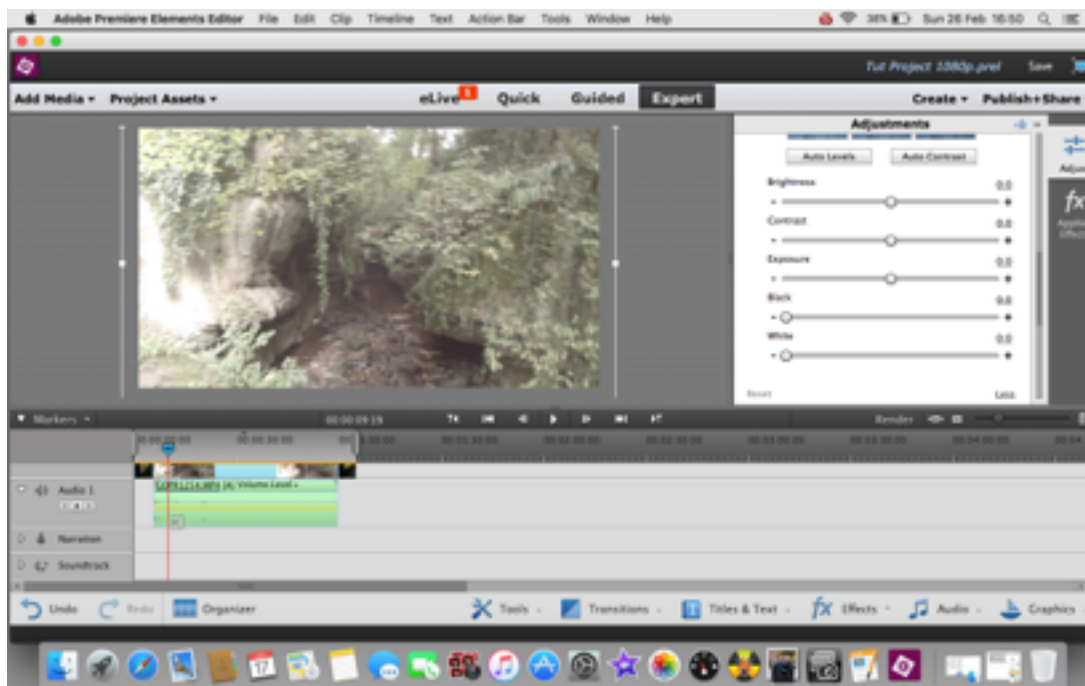


This gives you another pop-up, on the top right of the screen, with the various tools that you would expect in Photoshop - except they don't have quite the same names in some cases. Beside each tool panel there is a small arrow; when clicked it drops down more choices for that particular item, all of which are automated. Look below the icon choices and you will find in very small print the word 'more' - this gets you to the place you will recognise from Photoshop.

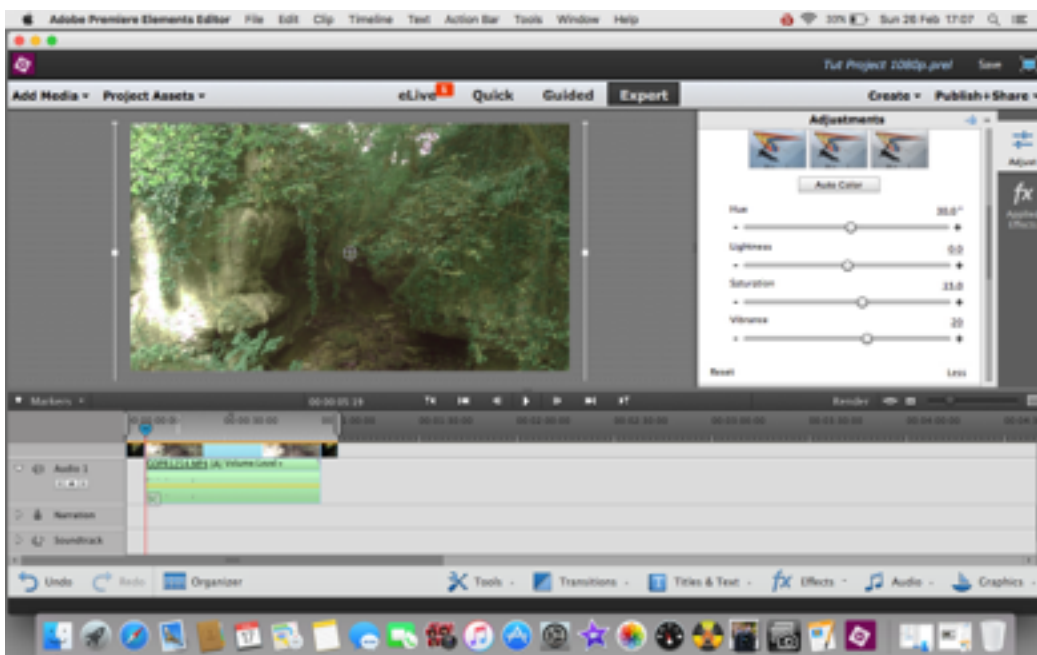
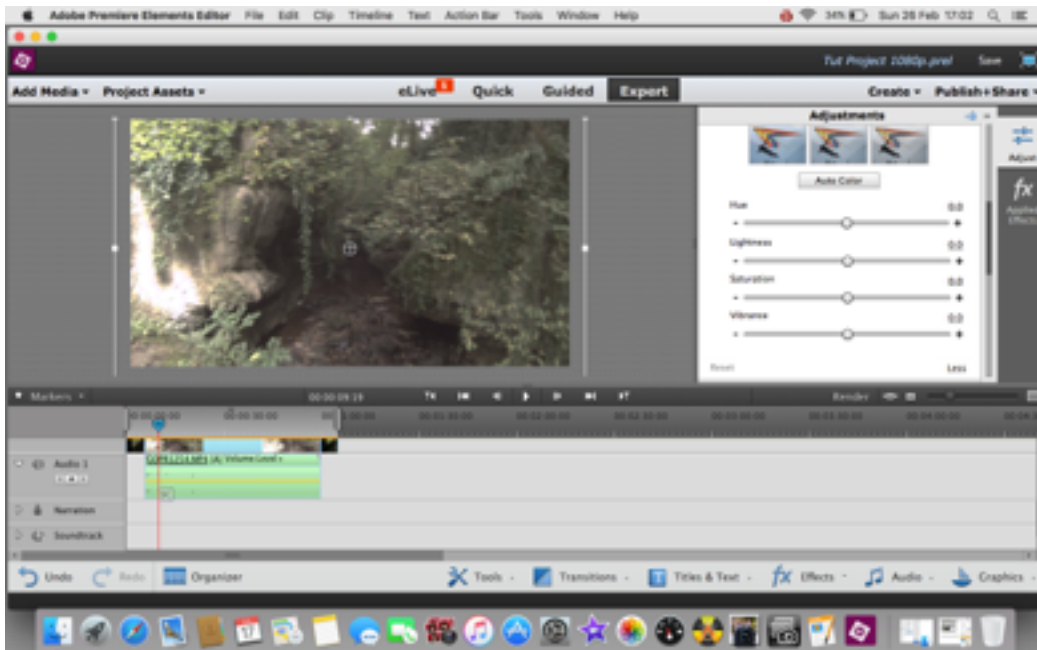
On this video clip the lighting needs adjustment so that is the first tool to use.



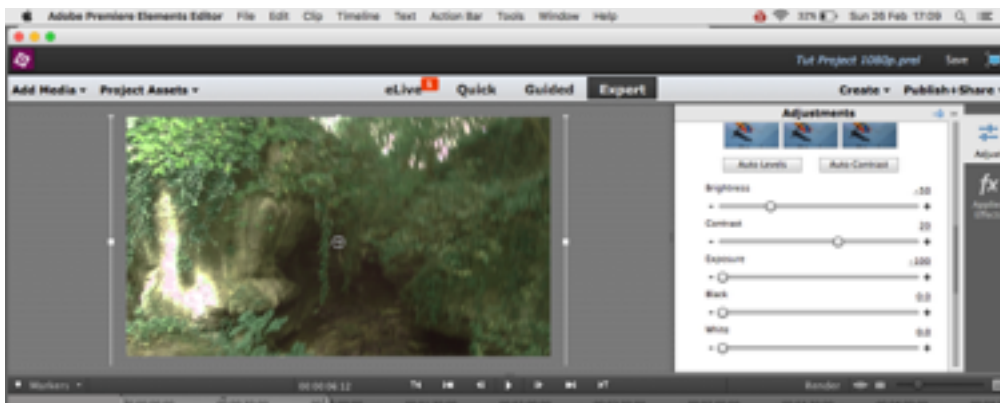
and if you click on the 'more' you get all the icons (above) and the sliders to play with (below).



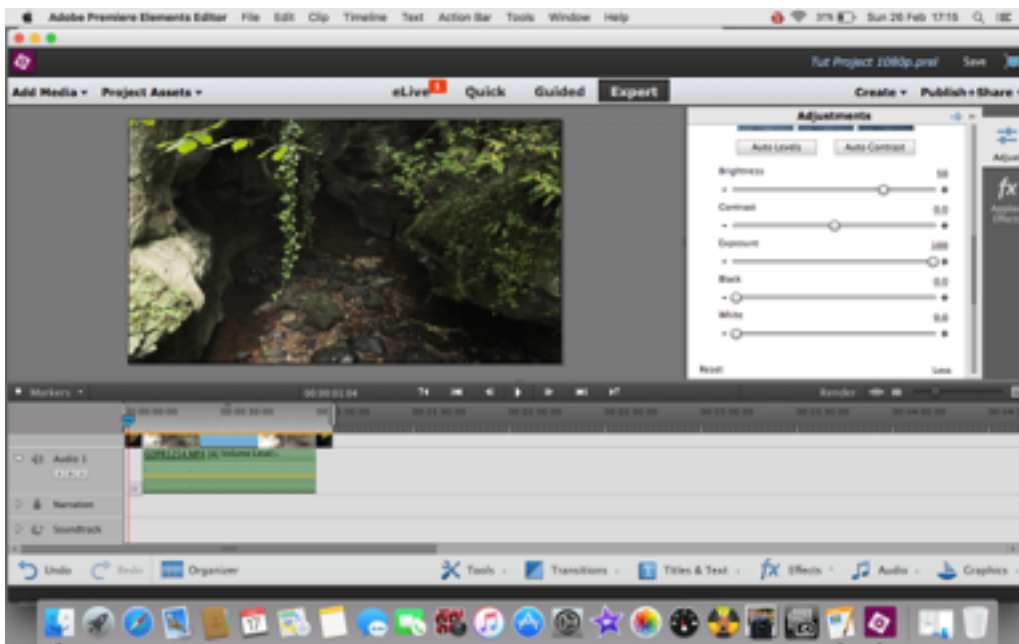
The video is looking much better just by using the exposure sliders. The colour requires attention next, so that tool is used on the item. Collapse the Lighting box by clicking on the small arrow on the left, and go to the Colour tool (not RGB Colour) and click on the arrow to bring up the tool palette. Again, bypass the preset icons and click on 'more' to get to the sliders you will use.



In fact, having adjusted the footage for vibrance, saturation and hue, it required a further adjustment under lighting on the exposure - taken from -50 to -100 - i.e. a full stop of exposure reduction.



The same process was needed on the still image, but for lighting only:

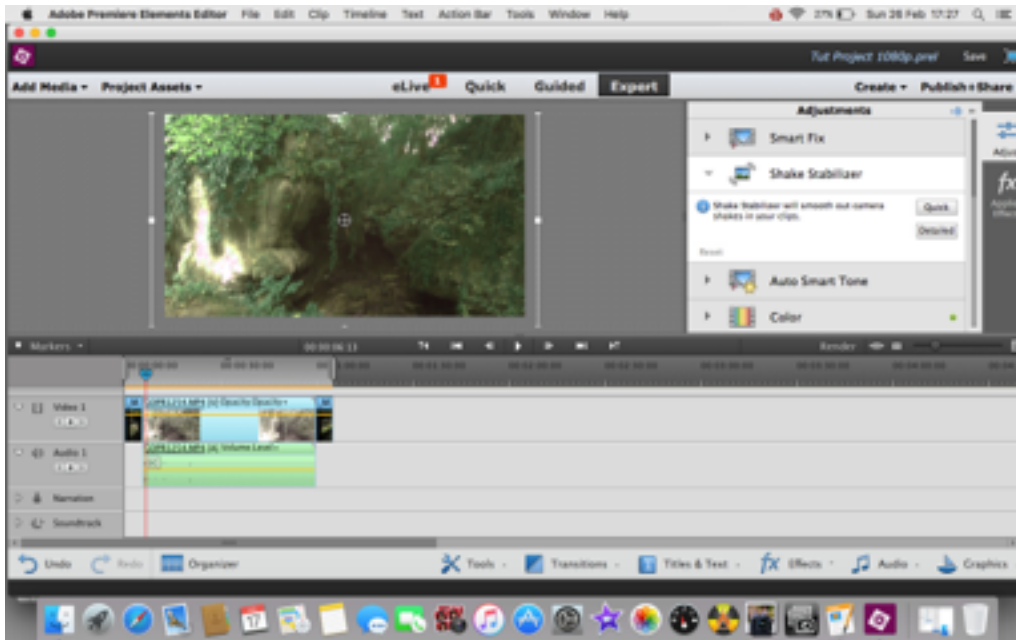


These processes make the two images alike visually with no sudden jump between exposure and colour tones.

Explore the various tools available on the list, and find out what each one allows you to do with your images and footage. Explore the icons to see what they can do for your images and footage - they are useful, but it is better to know how to use the full range of tools available in case they don't do what you need them to do.

This next item assumes that you have imported a video clip and have edited it - particularly, selected that part of it that you will be using, rather than using the whole clip. It is important that this is done before applying the tool, which is the 'Shake Reduction' tool. If you apply it to the whole clip, then edit out the unwanted part, you will also edit out the shake reduction tool effects and will have to start again on the newly selected piece of footage.

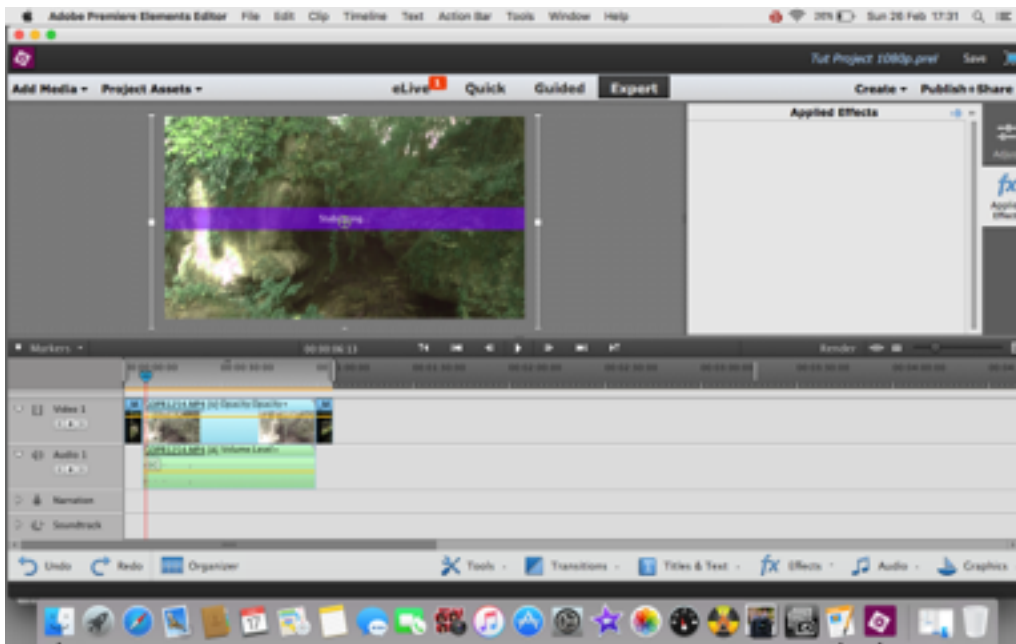
This Shake Reduction tool of immense use for anyone taking video footage. “Wobbly-cam” footage is simply awful to watch, and fairly inevitable if you hand hold your camera using video. When using a wide angle lens it is less irritating - and might even be unnoticeable if you are particularly lucky/steady-handed or leaning on a firm surface, but when you use any other lens length between standard and telephoto, the shakes are magnified.



Once more go into the tool - adjustments menus, but this time find the Shake Stabiliser tool. It is an automated system, all you need to do is click on either ‘quick’ or ‘detailed’ to fix the footage - and it virtually works miracles in some cases. Basically if the shake is small use ‘quick,’ if the shake is obvious or there is a doubt that the program can sort between intentional and unintentional movement, use ‘detailed’ - or just use ‘detailed’ anyway as a fail-safe.

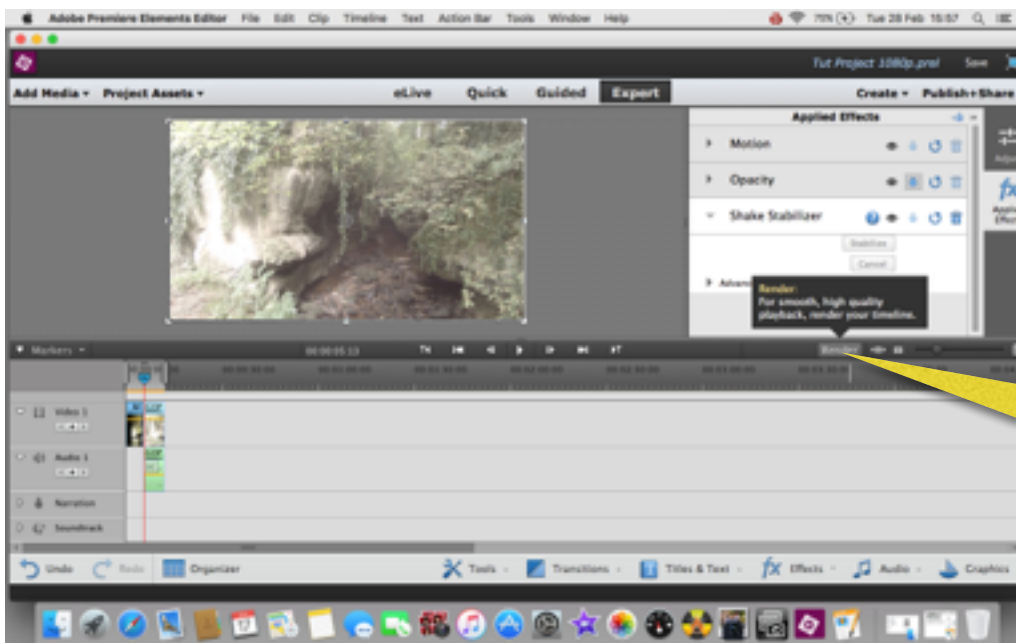
If you click on the ‘advanced’ button, there are a few more option choices, such as Smooth/No Motion, Stabilise - with options to crop the result (where the movement has been extreme), and Rolling Shutter. Of these options, ‘No Motion’ is a more aggressive stabilising, but can try to cut out deliberate camera movement. Stabilising with cropping options is used where the camera has been very unstable; the stabilising ‘guesses’ some of the movement to stabilise, and needs to cut out the edges of the video to produce the effect. Depending on your own preferences, you can crop the clip yourself or allow the program to do it for you. Rolling shutter is a different matter, and quite hard to fix. You have seen it probably without realising what it is - if you have seen video of a flying helicopter with the rotor blades looking curved unnaturally, that is the effect of rolling shutter. It is caused by the shutter not moving quickly enough to cope with the movement within the subject matter. The problem can only really be improved rather than completely fixed, so in this case expect something less than a miracle!





The program tells you it is doing the job by placing a purple bar across the clip while it does the job - and it can take a while depending upon how complicated the stabilisation needs to be, and how long the clip is, so be patient!

Once it has stabilised the video clip the purple bar disappears, and this is when you can play your clip through to check what has been done for you. However, the playback is likely to 'stutter' - it needs rendering to play back smoothly. Rendering (in very simple terms) is the program telling itself to recognise what it has done, and smoothing out the process for playback. To render what has been done just click on the render button on the top-right side of the time line area.



And.....wait. A pop up will tell you that it is working, and when it has finished. You can now play the stabilised clip through smoothly.

You can now carry on to the next part of your project.